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FIELD OVERSIGHT SUMMARY REPORT  
ACS NPL SITE  
GRIFFITH, INDIANA  
December 28, 1996 - February 5, 1997

**USEPA/ARCS V  
BVSPC Field Oversight Summary**

Reporting Period: December 28, 1996 - February 5, 1997 BVSPC Project No. 71670

Site Name/Location: ACS, Grifth, IN

Hours Worked: 192

USEPA Work Assignment Manager: Sheri Bianchin

Project Coordinator: Steve Mrkvicka

Personnel Summary Affiliation	No. of Personnel	Responsibility
John Gandy, Foster Wheeler Environmental Corp., Columbus, OH	1	Barrier Wall Construction Quality Assurance & Quality Control
Horizontal Technologies, Inc., Lake Alfred, FL	10	Benching and Pre-excavation activities associated with Barrier Wall Extraction System (BWES)
Young's Environmental Cleanup, Inc., Flint, MI	6	Installation of Perimeter Groundwater Containment System (PGCS) Extraction Trench, and conveyance piping
Ben McGeachy, Montgomery Watson Addison, IL	1	Respondent's General Contractor
Ashok Rupani and Steve Mrkvicka, Black & Veatch Special Projects Corp., Chicago, IL	2	USEPA Oversight Contractor

**Summary of field activities**

A number of field activities were undertaken by the Respondents during this reporting period. From December 28, 1996, through February 5, 1997, Montgomery Watson and its subcontractors, HEE and Youngs, conducted field activities associated with the installation of PGCS and BWES. BVSPC provided oversight during the reporting period. Copies of BVSPC field notes and photographs showing key activities are attached.

### ***Spoils Management Plan***

Based on a December 23, 1996, letter and a January 19, 1997, letter to the USEPA, Montgomery Watson developed a spoils management plan to manage and temporarily store construction derived spoils. In a January 10, 1997, letter to Montgomery Watson, the USEPA defined "spoils" as the wastes and contaminated soils excavated from the site as part of the remedial action and may include some debris. The spoils management plan was developed to assure that any excess spoils are moved or consolidated in the same area of contamination so that new treatment, storage, or disposal requirements are not triggered. The USEPA approved the spoils management plan in a January 28, 1997, letter to the Respondents. The spoils management plan established following seven areas for management of construction derived spoils:

- Onsite PCB-Containing Spoils Management Area.
- Offsite PCB-Containing Spoils Management Area.
- Buried Waste Spoils Management Area (VOCs > 10,000 ppm and PCBs > 10 ppm).
- Upper Aquifer Spoils Management Area (VOCs > 10 ppb and VOCs < 100 ppm).
- Drum Staging Area.
- Miscellaneous Debris Management Area.
- Demolition Rubble Management Area.

### ***Air Monitoring and Health and Safety***

Health and safety personnel from Youngs and HTI were present on-site during all intrusive activities. Their main task was to conduct continuous air monitoring during intrusive activities, notify the working crew as necessary, and advise of any needed upgrades to Level C or Level B personal protection. Most of the activities were conducted in Level C personal protection for the operators and workers closest to the excavation and modified Level D personal protection for other workers.

Health and safety personnel conducted continuous air monitoring using a photoionization detector (PID). Periodically, or as suspected, draeger tubes for benzene and vinyl chloride detection were also utilized.

### ***Barrier Wall Extraction System***

In a June 27, 1996, letter to the Respondents, USEPA provided unequivocal approval to proceed with the construction of BWES. During this reporting period, Youngs installed most of the conveyance piping associated with the barrier wall and BWES.

conducted benching and pre-excavation activities in the Offsite Containment Area to prepare for the installation of barrier wall and associated extraction trenches along western and eastern leg of the barrier wall alignment.

### **Spoils Handling**

Before commencing aforementioned field activities on December 30, 1996, Montgomery Watson identified an approximately 75 feet long stretch along the western leg of the barrier wall alignment. Excess soils excavated from this area were placed in the Buried Waste Spoils Management Area. Excess soils excavated from all other areas were placed in the Upper Aquifer Spoils Management Area in accordance with the spoils management plan.

During the installation of BWES conveyance piping in the Offsite Containment Area, municipal waste debris was encountered along an approximately 500 feet long stretch of the western leg of the BWES conveyance piping alignment. The municipal waste debris was excavated to four (4) feet below ground surface (bgs) and placed in the northwestern corner of the Upper Aquifer Spoils Management Area. The municipal waste debris was kept segregated from other spoils in the Upper Aquifer Spoils Management Area.

During the installation of barrier wall in the Offsite Containment Area, municipal waste debris was encountered along an approximately 700 feet long stretch of the western leg of the barrier wall alignment. The municipal waste debris was encountered at depths ranging from two to 10 feet bgs. All municipal waste debris at these locations was excavated and placed in the northwestern corner of the Upper Aquifer Spoils Management Area.

All drums encountered during barrier wall pre-excavation and BWES conveyance piping installation activities were overpacked, if necessary, and placed in the Drum Storage Area. Drum carcasses and other miscellaneous metals/debris were placed in the Miscellaneous Debris Management Area.

During installation of water line and BWES conveyance piping immediately north of the ACS office building, a portion of the concrete apron was demolished. The concrete debris was placed in the Demolition Rubble Management Area.

### **Conveyance Piping Installation**

Conveyance piping for the BWES consisted of a 2-inch diameter single-wall high-density polyethylene (HDPE) influent pipe to convey the extracted groundwater from the barrier wall extraction trenches to the treatment building, and a 4-inch diameter single-

with HDPE pipe to convey compressed air from the duplex air compressor located in the treatment building to the extraction pumps located in each of the main trench trenches. A 3/4-inch diameter Schedule 40 PVC pipe will be installed later to a 2-inch header to individual extraction pumps. The conveyance piping was buried approximately four feet bgs.

In the Offsite Containment Area where municipal waste debris was encountered, the conveyance piping was placed on a 6-inch thick sand bedding and the trench was partially backfilled with sand. In the Onsite Containment Area, the conveyance piping was placed on a 6-inch thick gravel bedding and the trench was partially backfilled with gravel, and then sand to approximately two feet bgs. The sand backfill was placed in layers and compacted with vibratory roller. The clean sand and gravel was brought in from off-site sources. The remainder of the trench was backfilled with excavated soils.

During installation activities along the BWES conveyance piping alignment, elevated PID readings were observed in the east-central region, immediately north of the ACS office building; the northwestern region, immediately east of the ACS load pad; the west-central region, immediately north of the railroad tracks inside the ACS fence line; and immediately south of the treatment building.

Groundwater was encountered while excavating in the Offsite Containment Area and the Onsite Containment Area; however, except for the buried drum area, dewatering of the excavation was not necessary to complete the BWES conveyance piping installation.

Through the end of this reporting period, Youngs had completed the installation of BWES conveyance piping except along eastern leg of the barrier wall alignment in the Offsite Containment Area and across the railroad tracks south of the ACS facility. These installations would be completed during the barrier wall installation.

### **Drum Removal**

During BWES conveyance piping installation, buried drums and drum carcasses in a variety of conditions were encountered at two locations near the southwestern corner and the north-central region of the conveyance piping alignment. Two drums were encountered near the south-west corner. These drums were covered with plastic and temporarily staged near the Buried Waste Spoils Management Area. No significant PID readings were observed from these drums.

On January 21, 1997, a number of drums and drum carcasses were encountered along a north-central stretch of the BWES conveyance piping alignment. Investigative test pits conducted by Youngs indicated that the buried drums area extended to

approximately 191 feet. Soils excavated from this area indicated elevated PID readings as high as 400 ppm. Some of the buried drums and drum carcasses indicated presence of elevated levels as high as 4 ppm indicated by Draeger tubes for benzene and vinyl chloride. Construction activities in this area were immediately shut down and the area barricaded until the drums and drum carcasses were removed. Between February 1 and 3, 1997, Youngs conducted drum removal activities from this area. Drums and drum carcasses were managed and overpacked, as necessary, in accordance with the spoils management plan. A total of 41 overpack drums were generated and relocated to the Drum Storage Area. After the installation of BWFS conveyance piping was completed in this area, excess soils were relocated to the Upper Aquifer Spoils Management Area. Drum removal activities were conducted in Level B personal protective equipment. Some groundwater was pumped into a 55-gallon drum as necessary to complete the drum removal and installation activities.

### **Benching and Pre-excavation Activities**

During this reporting period, HHI conducted benching and pre-excavation activities in the Offsite Containment Area at extraction trenches 12 and 13 along western leg and extraction trenches 15 and 16 along eastern leg of the barrier wall alignment to prepare for the installation of barrier wall and associated extraction trenches. No benching or pre-excavation was required for extraction trench 11.

Benching is defined as creating a level, working platform either by excavating the native soils or building an embankment with clean imported soils to achieve required elevations. Benching was also required to overcome limitations on the trencher box length (maximum 20 feet) and varying elevations of the top of the clay layer. Depth to the top of the clay layer is shallowest in the northwestern region of the Offsite Containment Area. An embankment varying in height from one to four feet was constructed at various locations along the western leg of the barrier wall alignment approximately between stations 13+00 and 23+00. Depth to clay is maximum in the south-east region of the Offsite Containment Area. Excavation varying in depth from three to eight feet was conducted at various locations along most of the eastern leg of the barrier wall alignment approximately between stations 1+00 and 7+00. Benching activities for the barrier wall and the extraction trenches were conducted simultaneously.

During the installation of barrier wall in the Offsite Containment Area, municipal waste debris was encountered along an approximately 700 foot stretch of the western leg of the barrier wall alignment. The municipal waste debris was encountered at depths ranging from two to 10 feet bgs. Before building an embankment, municipal

waste/debris was excavated and relocated to the Upper Aquifer Spills Management Area in accordance with the spoils management plan. The excavation was then backfilled with clean imported sand.

A number of drums and drum carcasses were encountered during pre-excavation activities along the southern half of the western leg of the barrier wall alignment approximately between stations 13+00 and 16+00. Some of the drum carcasses and empty drums that did not need overpacking were relocated to the Miscellaneous Debris Management Area.

Regular pickets held at the site by Local 150 Operating Engineers Union hindered the delivery of clean sand from off-site sources. In order to continue the benching activities, the Respondents, in a January 24, 1997, letter, requested the USEPA to allow HFI to use the sand from along Colfax that was excavated during benching along eastern leg of the barrier wall alignment in the Offsite Containment Area. The USEPA approved the request, provided laboratory analytical documentation was available to certify that the Colfax sand did not contain chemicals above the Remediation Levels listed for the site in the Unilateral Administrative Order.

On February 1, 1997, two representative samples of Colfax sand were collected in the presence of BVSPC personnel. Each sample was composited from four to five discrete locations along the area where Colfax sand was temporarily stockpiled. Sampling activities were conducted in accordance with BVSPC's mini-Quality Assurance Project Plan (QAPP) as approved by the USEPA. Both samples were submitted for analysis under Contract Laboratory Procedure protocols in accordance with the approved QAPP for the site activities.

On January 28, 1997, HFI excavated a test pit approximately between stations 11+00 and 12+00. The purpose of this test pit was to determine the depth of pre-excavation required along the southern leg of the barrier wall alignment and associated extraction trench 14. The test pit indicated the presence of municipal waste/debris to an approximate depth of 9 feet bgs.

On January 29, 1997, HFI set the barrier wall trencher in the ground between 22+00 and 23+00 along the barrier wall alignment.

By the end of this reporting period, HFI had completed benching activities along the western and eastern legs of the barrier wall alignment and associated extraction trenches in the Offsite Containment Area.

### ***Perimeter Groundwater Containment System***

In a June 27, 1996, letter to the Respondents, the USEPA provided unequivocal approval to proceed with the construction of the PGCS. During this reporting period, Youngs installed the conveyance piping associated with the PGCS extraction trench and began mechanical and electrical installations for the conveyance piping. HFI constructed the PGCS extraction trench.

### **Spoils Handling**

Excess soils generated from the PGCS construction activities were relocated to the Upper Aquifer Spoils Management Area. As described in earlier reports, the PCB-containing soils present in the upper two feet bgs along the PGCS extraction trench alignment were removed and staged in the onsite PCB-Containing Spoils Management Area in accordance with the spoils management plan.

### **PGCS Extraction Trench Installation**

HFI began PGCS extraction trench installation on January 2, 1997, and completed on January 30, 1997. Field activities began with preparation of the installation areas. The preparation activities included installation of silt fence for erosion control, clearing and grubbing for level working area, and placement of wooden matting along the trencher's path to disperse the weight of the trencher and ease construction under wet conditions.

The trencher was equipped with a cutting boom and a delivery system for the sump and filter material placement. A 12-inch diameter PVC vertical riser was first mounted on the front of the delivery system. A 6-inch diameter corrugated HDPE screen with an exterior geotextile fabric filter was then fed through the delivery system and connected to the vertical riser at a T-joint approximately six inches from the bottom of the vertical riser. The connection was made with multiple screws and bolts that were wrapped with layers of protective tape. The trencher was positioned at the eastern end of the PGCS extraction trench. Trenching proceeded in a west and south-west direction. The cutters dug down until the cutting boom was vertical to the ground surface. At this point, the vertical riser was released from the delivery system. The trencher began a forward motion while simultaneously trenching, installing the horizontal screen, and continuously backfilling with sand filter material from two feet bgs to the total trench depth. The well screen was located at an approximate elevation of 622 feet. As the trencher moved forward, the sand, previously loaded into the trencher hopper, replaced the excavated material that was being discharged from the trencher conveyor system.

The depth and grade of the trencher was maintained by continuously checking the grade of the cutting boom. The screen was installed at depths ranging from 12 to 16 feet bgs. The slope of the screen was maintained at 0.005 towards the sump. Once the design trench length was reached, the screen was converted to a solid 6-inch diameter corrugated HDPE pipe that will serve as an access port at the non-pumping end of the trench. The access port extended approximately 15 feet horizontally.

HTI conducted three separate PGCS extraction trench installation with approximately 10 feet of overlap, thus establishing a continuous trench of 1,350 lineal feet. Each of the three trenches began with a sump and extended approximately 510 feet, 510 feet and 360 feet, respectively, as required for the design length.

### **PGCS Conveyance Piping Installation**

Youngs began installation of the PGCS conveyance piping on January 30, 1997, and completed on January 31, 1997. Conveyance piping for the PGCS consisted of a 2-inch diameter single-wall HDPE influent pipe to convey the extracted groundwater to the treatment building, a 1-inch diameter PVC electrical conduit pipe, and a 1-inch diameter PVC pipe to install sensor probes for the sump pumps. The conveyance piping was buried approximately four feet bgs.

The conveyance piping was directly placed on the native sand and the trench was backfilled with the excavated sand. On January 31, 1997, Youngs began installation of the junction boxes for the conveyance piping and continued those activities through the end of this reporting period.

### **Miscellaneous Activities**

In addition to the BWES conveyance piping, Youngs installed a 6-inch ductile iron potable water line approximately 12 inches above and approximately 12 inches to the side of the conveyance piping in the same trench. The water line was installed beginning from the water main located immediately north of the ACS office building to the treatment building. On January 30, 1997, Youngs completed installation of the water line. After installing the fire hydrant, chlorination and pressure testing of the water line began on February 5, 1997.

As required by the spoils management plan, HTI placed a two-foot thick sand cover on top of the soils staged in the onsite PCB-Containing Spoils Management Area.

***Problems Encountered/Corrective Actions:***

During the initial period of field activities, both subcontractors, HFI and Youngs, did not adhere to the site health and safety plan (HSP) with regards to the air monitoring, donning of appropriate personal protective equipment, and establishment of designated exclusion zones and contamination reduction zones. The USFPA received a number of public complaints such as workers leaving site without personal decontamination, etc., from local residents. Following a number of meetings with the Montgomery Watson, both subcontractors immediately deployed a full-time Health and Safety Officer to implement the required air monitoring and decontamination procedures in accordance with the HSP.

On January 3, 1997, during water line and BWFS conveyance piping installation activities near the ACS office building, BVSPC oversight personnel observed that Youngs was transporting the excess spoils via Colfax Avenue to the Upper Aquifer Spoils Management Area located in the Offsite Containment Area. BVSPC personnel immediately notified Montgomery Watson and reiterated that transporting excess spoils in such manner was inappropriate. Montgomery Watson then halted the construction activities to emphasize the same to Youngs. Later, Montgomery Watson directed Youngs to clean the affected areas of Colfax Avenue and continue to transport the excess spoils to the Upper Aquifer Spoils Management Area via the railroad truck crossing. The railroad truck crossing was built across the railroad tracks south of the ACS facility specifically for movement of vehicles between the Onsite Containment Area and the Offsite Containment Area.

Dispute with Local 150 Operating Engineers Union that began on December 3, 1996, continued through this reporting period. Daily pickets were held at the site and a number disturbances were caused by the members of the Local 150. These activities hindered the delivery of materials and supplies to both the union and non-union subcontractors working on the site. As a result, planned field activities proceeded at a slower rate.

Several delays were encountered due to extreme cold weather and equipment breakdown.

On January 2, 1997, during installation of the PGCS extraction trench, HFI's end-loader accidentally hit the monitoring well MW-54. This was a shallow well, installed in December 1996, screened at the top of the lower aquifer. Montgomery Watson's personnel temporarily secured the well head with a 5-gallon bucket until evaluation of the damage was completed.

### ***Future Work Schedule.***

Following intrusive activities are planned through May 1997:

- Completion of PGCS (manholes, piezometers, effluent discharge valves, electrical and mechanical hook-ups) start-up and tuning.
- Completion of barrier wall installation and extraction system (extraction trenches, manholes, sumps, piezometers, conveyance piping, electrical and mechanical hook-ups).
- Construction of 4-inch water line inside the ACS plant to replace the production wells.
- Abandonment of six ACS production wells.
- Installation of a new monitoring well to replace MW-54.

Following investigative activities are planned through May, 1997:

- Second Quarterly sampling of lower and upper aquifer wells.
- Sampling of the four Griffith Landfill Wells, M-1S, M-2S, M-4S and M-4D.
- Independent sampling of the ACS production well ATMW-4D.
- PGCS start-up sampling.
- Sampling of six (6) ACS production wells.

### ***Comments:***

At the time of writing of this report, following tasks remain to be completed by Montgomery Watson:

- The soil cuttings generated from drilling through the upper saturated zone at well locations MW-54/MW-55 should be placed in drums. The soil cuttings were left in place near the wells.
- The new monitoring wells should be permanently labelled as soon as possible.
- The two drums encountered near the southwestern corner during installation of the BWES conveyance piping have not yet been managed per the spoils management plan.
- A number of drums and drum carcasses were encountered during pre-excavating at various locations along the southern half of the western leg of the barrier wall alignment approximately between stations 13+00 and 16+00. Most of these drums and drum carcasses were temporarily covered with plastic and left in place to one side of the excavation. These

drums remain to be handled and relocated in accordance with the spoils management plan.

Signature: *SMH for Habib R. Jami*

Date: 5-12-97

16  
Frank P. Paine  
12-30-96

0800 On site

Weather: Partly cloudy, 55°F  
Remained HCU going to start  
of PERS trench construction  
today.

0830 Review Friday's sample

independent record to the SMC.  
Also talked to Lee: He said Young's  
recommendation is going to be  
made today to remove the  
downstream conveyance pipe  
installations.

0920 Lee drove me over to DECA  
and showed me the markings &  
signs put up for the three  
sports management area.

0930 I informed the site investi-  
gation district master gene,  
and also at MW 54/55  
and MW 54/55 have not been  
taken care of so far. Lee  
said he will take care  
of that as soon as he  
can. I gave him a copy of the  
site plan and showed him  
the

17  
Frank P. Paine  
12-30-96

1000 HCU is currently in the open  
area including the materials for  
the trench wall. They will now  
begin PERS trench construction  
today. discussed with Lee about what  
to consider. He said Young's is also  
planning to install portable toilet  
limb along the trench conveyance  
pipes. He gave me a copy of  
the letter from MW 54/55  
concerning the trench location  
of the water line.

1100 I reviewed all the information  
pertaining to the trench  
over wall. The site manager  
said that the trench location  
was by the old log of the  
wall.

1130 Lee drove to the site and  
brought with him a copy of the  
plans. 25' stretch of trench wall  
area and mark  
area where trench will be  
made. He said the trench will  
be 10' deep and 10' wide.  
He will work on the trench  
today.



~~Franklin~~  
12-31-96

20

0815

Weather cloudy, 35°F

HTT is going to begin Phase  
three excavation.

0845 Young's is setting up to remove

conveyance piping installation.  
Today they will start from the  
entrance by the landfill  
which is the area they will  
work south.

It should be that the drums  
are going to be placed  
within 100/100 area since  
they exhibit 2500 ppm PCB  
readings.

1015 Complete approx. 200' of  
conveyance piping (influent  
and outlet over line) installation.  
Some of the excavated soil is  
being used as backfill and  
remaining will be handled  
per SMP. At locations  
where there is no refuse, no  
loading for the pipes could be  
found in natural sand would

~~Franklin~~  
12-31-96

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be appropriate for a bedding material  
if necessary.

#28 conveyance piping installed  
by Young's (looking north-east)

#29. Change stakes showing the alignment  
of conveyance piping installed  
(looking south-west)

#30 conveyance piping installation  
by Young's (looking south-west)

1030 Andy of HTT came over and  
we plan to equip and breakdown  
as going to be about 1/2 a day  
before they get started.

1030 Young's take lunch.

1200 Back to the site.

Young's continues to work on the  
conveyance piping installation.

1345 Young's continues to install the  
conveyance piping. All work done  
is up from mid-depth excavation  
as noted.

1400 Some of the pipes are being  
put

long tubes to the ground  
of the SA specifications.

Johnson's Performance  
12/31/96

22

- 15:30 Young's continues to excavate  
the hole in the HPI in Young's  
a large hole on place's  
level tomorrow.
- 16:15 About 10' of trench left to do  
for Young's.
- 16:50 off site.

Johnson's Performance  
12/31/97

23

- 10:00 on site  
Weather: cloudy, soft wind  
HPI design. Paces trench  
about 45' into trench.  
Key structural from the north end.  
10:15 Joe told me Young's did not  
get a very far trench. 12/31/96.  
A couple of some problems. 10:40  
about into the trench that  
#34. 10:40. excavating through  
#33. Rock log of Paces trench line  
in direction towards the north end  
(looking north-west / west)  
10:45. Met with Pete Knight. He gave  
me an update on scheduling.  
11:00. Joe says the OCA Young's trench  
completed. The cables are done  
installation was by the end of  
trench wall area.  
11:30. Daily trench by the Paces  
trench which Young's just completed  
(looking south-west)  
11:25. Young's will have a different  
of equipment to complete the trench.  
mine are excavated trench area.

John Ruffini  
1-2-97

24

at shaft area. They will begin  
decoding their excavating  
equipment.

11:45 Joe said #171 is having some  
equipment trouble and will  
return in a while.

12:00 Break for lunch.

12:45 Back to the site.

13:00 Enter the plant and meet with  
Tom Truman. He gave me the  
H&S guidelines.

14:00 Joe told me. You're not going to  
be able to start digging <sup>ARK</sup> ~~to~~  
until tomorrow morning.  
#11 has not yet started  
Poles trench work.

17:00 #3, #36 Continuing with Poles  
trench excavation. The  
equipment being used is  
excavating, throwing the  
excavated material back on,  
flipping the pipes and backfilling  
with clean sand in one  
section of the excavation  
and then exposed in another.

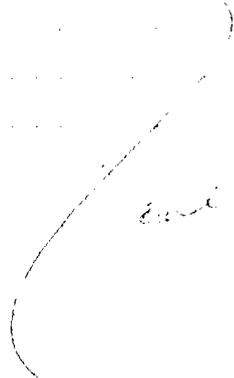
John Ruffini  
1-2-97

25

15:30 Approx. 250 feet of trenching  
been completed. #171 will  
relocate the spoils after the  
entire trench is completed. The  
pipe is being laid at approx  
10 feet below surface.

16:00 #171 completed approx. 400  
feet of trench and has  
equipment worked down. Stop  
for the day. Few minutes ago  
#171 accidentally hit the ~~rock~~  
with one of his dogs. <sup>54 ARK</sup>  
Looked closely at dog <sup>55</sup> ~~will~~ <sup>56</sup> ~~that~~  
top steel cap had come off and  
the well casing had been damaged.  
Will test it. There about 100  
damage.

16:30 off site



Ashok & Jennifer  
1-5-97

20

1040 On site

Weather: sunny, 30°F

1045 Lee told me H1 is not going to do any work today. Their equipment is still being fixed. He also indicated H1 was doing things regarding H1000 & safety cones so they will not work until their H1's are ordered or onsite. H1 will perform work tomorrow.

Young's will not work tomorrow.

1050 Left a message for Cecilia ductell regarding upcoming sampling projections.

1055 Young's continues to install an oxygen piping and potable water line inside the plant.

1100 Called Steve and updated him with things on. Discussed the status of damaged well, excavated drains.

1105 Work inside the plant. Young's H1 continues to work on emergency piping (looking south west)

Ashok & Jennifer  
1-5-97

21

1050 I noticed Young's is taking one of the excavated soils by bucket of closer bucket - by creek near Colfax Ave. I immediately went over to Lee and indicated to him that I was concerned with the activities.

1100 Lee came over and told Young's to stop, clean up materials, soils were dropped in Colfax. Young's indicated they were keeping the excavated soils in a separate pile just south of the VA sports area. Cones and cones were done (supposedly not contaminated) were hauled to an area just east of the VA sports area and placed in a separate pile above a plastic sheeting.

1130 MW in discussion with Young's. Apparently Lee indicated Young's to stop just further go for a while for traffic, do not know when they will come back. The good thing is that we are moving the good thing temporarily to that area.

Stock Republic  
1-3-97

28

Checked the plot and then  
moved later to UA spoils  
area. I indicated first  
of all that I was not very  
convinced, moving the sides  
around like that would result  
of all spoils management Plan  
did not indicated multiple  
measurements of 2nd excavated  
from the site. Ben and Jan  
will will discuss more after  
lunch.

12:15 Breakfast Lunch.

13:00 Back to the site.

Then told me Yang's is off site  
and will be back Monday  
1/2/97. H11 will resume work  
tomorrow.

13:10 Go over to CFA to look  
at the dump which were  
covered during emergency  
piping excavation.

13:20 #3 drains excavated in  
the UFA near the end of  
the emergency piping alignment.

Stock Republic  
1-3-97

APR  
1-3-97

14:00 Go over to the <sup>MV54</sup> ~~road~~ which was  
slightly damaged during H11's  
#4 activities well appears to be  
#5 usable and not much damaged  
by the cul side. However, I think  
the well needs to be rounded to  
ensure no obstructions.

14:30 Go over to the catch basin area  
by H11 for barrier wall security  
operations.

#6 Shear testing of joint/wall  
sections 50 mil and 150 mil  
sections.

#7 <sup>PER</sup> testing of wall sections  
60 mil and 80 mil sections  
of the wall.

15:25 Back to my trailer to make  
phone calls to Ship & Stage.

15:45 off site.

Shok & [unclear]  
1-6-97

30

0800 - 0830

Weather sunny, 10°F, wind chill  
-21°F

Work is off today. Total work file  
as per Ben. Pete Vaght on  
site. I briefly descended to  
solve the problems <sup>involving</sup> <sup>located</sup>  
on Friday 1-5-97. Total said  
they have studied their matter  
with YECI and that no release  
has occurred. YECI will continue  
to work today.

0900 The road in YECI has resumed  
work beside the plant. H11 completed  
as the first stroke of 76155  
leach on Saturday 1-4-97.  
They will start the new  
vehicle tomorrow. Today H11 will  
work in the workshop to  
continue scanning/QA-cc work  
in the carrier wall.

1000 To make the plants to create  
yours they are on a hold.  
waiting for their off road  
vehicle to transport material

Shok & [unclear]  
1-6-97

31

over to the UA Spills area.  
1000 YECI's off road vehicle to assist  
1040 YECI requires excavator  
#8 Excavating Area, loading material  
into off road vehicle (looking  
south)

1055 Go over to UCA and observe  
blasting of excavated coils

#7 Staging of excavated coils to  
UA Spills area (looking north)

1155 Back to limit  
1230 Back to the site

YECI is continuing to mount the  
the drum inside the plant.  
It is being done because excavation  
material is being hauled  
directly to the UA Spills area.

1330 Leave for the office

end

Ashokk Puffin  
7-7-77

32

1030 on site

Weather: Sunny, 15°F,

Wind chill: -10°F

HTL is stazing sand to be used for the next stretch of PILES trench.

YECT told me YECT is working on the off site area cleaning up the trench areas they had done earlier. Excavation outside the plant is going very slow because YECT is doing some sand digging around the gas lines existing in that area. He has been to fill in for Bob today. He told me that the environmental cost has been covered with a barrel with a barrel. He also told me that PILE light indicated re sampling is the potentially damaged area.

HTL is working on the area where the pile is stazing sand to be used for the next stretch of PILES trench.

Ashokk Puffin  
7-7-77

33

1015 HTL continues to set up for the next stretch of the PILES trench. HTL has to take the sand to the site (looking west) 1025 YECT came over and told me YECT is probably to clean up the area by southwest corner of PILES. He said that HTL is cleaning up the area. He also told me that YECT is going to do the top of the trench. He said that YECT is doing the excavation and that YECT is going to be started to work on the top of the trench.

1040 YECT did to check on the PILES pile by west end of the PILES trench. I thought the plastic on top of the pile had come off.

1100 A small pile consisting of 2 loads of excavated material has been removed and staged within the site's area.

1115 YECT continues to work on the top of the trench. HTL is working on the area where the pile is stazing sand to be used for the next stretch of PILES trench.

John K. Pappas  
1-7-77

54

10:00 info on engine put back to  
the normal line (looking well)  
11:00 #12 and #14 conveyors  
lifting level the excavations  
under the frozen and under  
multi-color surface. (exposed  
structure)

11:00 break for lunch

12:00 back to the site. H11's  
fill getting up the next  
width of Peter's trench. May  
be putting in a trench  
this afternoon

13:00 called Steve and discussed  
the findings. concrete excavated  
from inside the plant; drain  
uncovered in the OFCA; potentially  
damaged well ~~MOX~~<sup>S4</sup>. AKF. 4/30/77

14:00 call to PFEA. YECI continues  
to make refuse to the VA sports  
arena.

15:00 letter to YECI, 10B/YOC fails  
one of the management  
ent

John K. Pappas  
1-7-77

55

10:30 break by the bread machine. H11's

H11 is also almost set up for  
the trenching. But will not start  
until tomorrow morning.

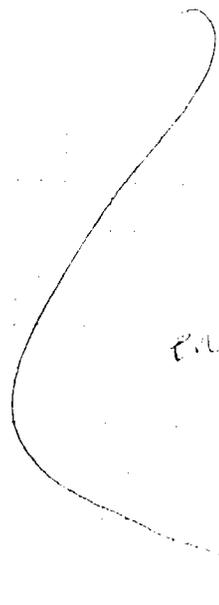
13:40 called Steve and informed him

that MVR plans to put the  
concrete back into the VA sports

arena. Earlier I had also informed  
him about the H11 accident

which resulted in YECI's problem  
getting inner section.

14:10 off site.



end

Atsuck Pukami  
1-3-77

36

1870 on site  
Weather: sunny, 12°F  
#171 is about to start the  
next stretch of P&CS trench,  
Yee is finishing up cleanup in  
the off site area.

1880 Lee told me XCC1 is going to  
put in concrete back in the  
ON spoils area.

1975 #171 begin trenching

1000 #13 setting up the snump at the  
north end of the southern  
most stretch of the P&CS trench.  
(looking west)

#17 Trenching for the P&CS  
(looking northwest)

1050 Complete 60' of trenching.

1200 Complete this stretch of the  
P&CS trench (is 360' long)  
The last 15' length of the  
piping consisting of non-  
perforated pipe was laid  
at 75%

There is some remaining from  
some locations will probably

Atsuck Pukami  
1-3-77

37

start the final stretch of the P&CS  
trench on Forestry

1300 Bank for drainage

1315 Back to the site meet with  
Rick Weber of MW.

#15 <sup>MW 3/24/77</sup> temporarily mended with  
the help of a bucket and a big  
piece of rock (looking west)

1345 #16 south end of the P&CS trench  
(looking west)

#17 PCB pile by the south end  
of the P&CS trench has been  
partially cleaned up. (looking  
north)

1400 Go over to off site area to look at  
the area where XCC1 just completed  
cleanup.

#18 The two drums have been  
slightly buried with a plastic  
and secured with a caution tape  
(looking east-northeast)

1415 #19, #20 Stakes showing in  
middle of company dump  
(looking north-northeast)

Ashtek Puffin  
1-8-97

38

Most of the refuse material  
has been put in the OA spits  
and some scrapings have  
yet to be picked up. I told  
me. the area will be further  
cleared after HTI is done  
constructing barrier wall. It  
will be dug up from inside the  
plant. It also been relocated  
inside the OA spits area.

1800 we had a meeting with  
YECI's  
of me and HSS officer on en-  
site and will meet with the  
other two and discuss a number  
of issues. YECI's probably may  
not begin digging inside the  
plant until tomorrow morning.

1800 met with team to discuss  
upcoming activities.

1915 off site

Ashtek Puffin  
1-7-97

39

730 On site. (heavy snow causing  
traffic delays)  
Weather cloudy, heavy snow;  
25°F; 6-8" snow  
predicted today  
HTI is doing set up work for  
the last stretch of the POC  
trench.

1000 Weekly contractors meeting is  
being conducted by HSS.  
detailing meeting will begin  
shortly.

1010 Called Sherrill and left a message  
regarding concrete source and  
waste disposal location.

1100 YECI begins excavation inside of  
plant.

1100 Pete Vogt arrived by and told us  
they just finished their weekly  
meeting. No new issues came up.  
Pete off-site.

1220 Break for lunch.

1300 Back to the site. YECI continues  
their excavation activities. Today  
demonstrating operation due to heavy  
snow.

John K. Dupont  
1-9-77

40

1350 By the trailer, Lee is having  
a meeting with YEC's HQS  
office. Ben told me HCT &  
YEC would probably not work  
on 1/20/77 due to MKR holiday  
Lee had told me yesterday  
one of the drums uncovered by  
YEC in the effluent area was  
essentially not examined and  
was not being taken off &  
disposed in one RB/Use spec  
area.

1400 YEC continues to clear to

1430 YEC excavating under the  
No. plant (looking west)

1450 YEC stops work temporarily  
for some reason will find  
out from Lee.

1500 Lee told me YEC has been  
abnormally consistent sampling  
at 1 ppm which consists of  
requesting them to work in line  
with YEC team has been working  
in and since this morning.

John K. Dupont  
1-9-77

41

1535 YEC continues to excavate and  
proceed slowly. I could smell  
from a distance strong petrol  
odors.

1600 Lee gave me a report to and  
said collecting all evidence  
to YEC.

1625 office

end

John Pupala  
1-10-97

42

940 12:30

Warner Heavy snow, a lot  
wind chill - 20°F

1000 I told me YECI is not  
going to work much today. They  
will be off site at 11:00 AM.  
They will just take the top  
soil off the trench, align out  
and will continue with  
backfilling on Monday 1/13/97.

1000 I still have not started tracing of  
station as yet.

1000 Tom Dow (Chicago office)

and Tom Robinson (Phoenix  
office) on site for a few hours  
if going on.

1000 I still is having equipment troubles  
and do not appear they will  
do any tracing this morning.

1000 called Dick at the office  
and discussed mini-snapp  
and meters.

1000 I was by the bankhouse. Andy  
of IEC told me that they will get  
the part they need by this

John Pupala  
1-10-97

43

afternoon - and will begin back  
backfilling of first trench tomorrow  
morning. Because today and the  
weekend, they will probably  
just do pre-examination, leveling  
and some trash refuse removal  
and get ready for winter soil  
and extraction trenches.

1140 Local police to come by the  
trailer and give me a load of  
spinning solution and water.

1200 Tom asked me to come along  
and mark the locations of  
extraction trenches 11 & 12 in  
the site area after lunch.

1210 Break for lunch

1300 Back to the trailer. Tom  
told me he had a conversation  
with Pete Keyt and that MUV  
will set up at least additional  
spits down - one for K/P building  
debris, the second for drums  
containing liquid and third for  
miscellaneous.



Stuck in Puffin  
1-13-77

46

1030 Arrival

Weather: sunny, 0°F, wind chill  
-15°F

Lee told me HTI will be on  
road travel sometime today.  
They are working in the warehouse  
and getting prepped for trailer  
work. Young's equipment is  
not working. They want to be able  
to do minor work. As for  
the main road, HTI only did  
some cleanup work in the  
offsite area and he excavated  
all of the extraction trenches  
and had temporarily placed  
the municipal refuse by the side.  
Saw Joe Brown, H&S Coordinator for  
Petro-Canada on site. I sat  
in on the health & safety  
discussion between Joe and  
Lee. Joe indicated HTI and  
Petro-Canada are going to will  
have strict air monitoring  
procedures in place during  
construction work.

Stuck in Puffin  
1-13-77

47

1030 Lee, Scott and I copying up  
addendum to the sports report  
plan dated 4/10/77. I checked with  
for these additional sports report  
areas. I indicated to Ben that  
the addendum was incorrectly  
mentioning other dates. Instead of  
other vehicles were involved.  
Ben said he would print that  
out for Kate. Kate then agreed to  
me about the other animals.

1100 Called Steve at the office and  
discussed a number of items.

1120 Called home and left a message.

1145 Back for lunch.

1230 Back to the site.

1170 H&S not started yet. I sat  
with Y&S.

1250 Checked in with HTI and they  
indicated that still plan to  
start the P&G's trench today.

1340 Lee called me in and showed me  
the building across sports area  
and mentioned that his sports  
area on the map. I looked at the



John K. Puffer  
1-15-47

11:00 Arrive

Weather heavy snow, 25°F  
wind chill -5°F

Lee told me HTI and YECI  
have both started working  
this morning

12:00 HTI has installed the traps  
for the last leg of P615 tunnel  
(the middle leg). They are  
in a temporarily hold because  
they are having trouble in  
pulling the gravel/sand through  
the tunnel into the branch.  
Due to excess cold/moisture.

13:00 Lee goes to YECI's crew. They  
have a new offroad vehicle  
and have continued piping  
installation.

14:00 YECI breaks for lunch

14:30 HTI possession very slowly

15:00 snow for lunch

15:30 back to the site.

16:00 YECI has not returned.  
Lee goes to  
check on it

16:30 HTI has completed to put

John K. Puffer  
1-15-47

at this leg of the P615 tunnel  
17:00 HTI has possession since then  
#22 half way through the P615 tunnel

17:20 #23 YECI continues to work on  
the emergency piping installation  
(looking south)

Lee told the YECI worker who was  
hospitalized a few days ago was  
proposed to have been affected from the  
blast.

17:55 HTI completed the last leg  
of the P615 tunnel.

18:00 YECI loaded up their equipment  
to get down camp and moved  
to the other side of the site.  
Left for camp off the back of the  
management area.

18:20 YECI will move to a north leg  
of the end of the site.

18:40 off site

19:00

19:30

20:00

Lee

32

SMH  
1-21-97

0900 Arrive at site. Meet with Ben Watson, Lee Cross, Montgomery. Ben takes me to H/TI where house off of Reder Road to observe installation of barrier wall. Back at site trailer. Go with Lee to the Offsite Containment Area to help delineate the spoils management areas.

1030 On way back to site trailer, we drive by the Young's workers, who are working on the air and water piping inside the ACS plant. Weather is overcast, breezy, about 35°

1115 Drive back to Young's work area in ACS plant which is near front gate just north of the ACS office. Took several pictures of trenching operation (400's). Facing west, Young's was placing 1" and 2" HDPE piping (air and water) in trench.

53

SMH  
1-21-97

Frost is about 2 feet deep so Young's is using a hydraulic hammer to get them down. HTIS trencher, which is slowing speed things up. Pipe is fitted and then placed in trench then back filled. Everyone is in Level C PPE. Strong breeze from south. I am standing in wind from trench. Lee points out blue seam in trench wall and trench is about 4 feet deep and 4 feet wide. Lee kicks spoils pile and takes HNA reading about 20 yards downwind of trench and has no reading of the air downwind. Periodically a big tired dump truck is loaded with spoils and taken to the Offsite Containment Area and placed in the appropriate spoils management area. Strong VOC odor to spoils. Spoils are a uniform sand

54

SMH

1-21-97

- that are moved to the Upper Aquifer Spoils Management Area.
- 1145 Break for lunch.
- 1300 Back at site. Make phone calls to office.
- 1330 Drive by Youngs work area. They appear to have stopped work to work on the front end loader. Breaker is broken. Looks Youngs is done for the day.
- 1400 Meet with Lee and Ben at site trailer with Andy and HTI foreman. They are discussing what to do with the PGCS trench spoils and the benching material that will be removed from between the landfill and the Off-site Containment Area. They decide that they want to move it next to the spoils that Youngs is removing from inside the plant (spoils containing > 10,000 ppm VOC). The PGCS spoils will be placed to the west of the spoils containing > 10000 ppm VOCs, which and will segregate the landfill waste,

SMH

1-21-97

55

- which will be placed further west. The landfill benching material will be extensive, and they'll need a large area for this material. I told them that the most important consideration is to segregate material and NOT mix material that should be placed in different spoils management areas. I also said that material that is not "spoils" will have to be removed and disposed offsite. They said they understood.
- 1500 Go with Lee and take water level measurements from several piezometers. Begins to rain heavily.
- 1545 HTI is moving PGCS spoils to the OFCA spoils management area.
- 1600 leave the site.

SMH 1-21-97

18310  
1-22-91  
1-22-17

56

on site

Weather cloudy, 35°F,  
Alec with Lee and Ben. Lee  
told me YECI is in the process  
of putting the trenches toge-  
ther which they borrowed  
from HTI. The process takes  
about 4 to 6 hours. So  
currently YECI is not doing  
any trenching. Also, HTI has  
moved 75% of the POCs  
spoils to the UA spoils mgmt  
area in accordance with  
the plan discussed with  
Steve in yesterday. HTI is  
pulling two off-road vehicles  
to make the spoils.

HTI Lee told me YECI moved the  
concrete back into the appropri-  
ate spoils mgmt area last  
Axi- Friday week.

1750 #6 HTI is moving POCs spoils  
(looking north-east - east)  
to go to the OFCA. HTI  
is pre-extraction excavating  
Axi-

1-22-91

57

#7 the extraction trench #12. The  
refuse material is being moved  
over to the UA spoils area.

1015 HTI is spreading the POCs spoils  
within the UA spoils area to set up  
#8 sort of a barrier between municipal  
refuse and rest of the spoils.

1020 Lee had told me earlier that  
YECI had removed the concrete  
fairly quickly last Friday week on  
Wednesday.

1030 During pre-examination of extraction  
trenches, HTI's Health & Safety  
officer is monitoring air in the  
breathing zone.

1050 HTI continues to pre-examine  
and remove the trash. Also work  
now to move POCs spoils.

1100 Go over by the treatment building  
YECI is still putting the trench  
together. They have not laid  
any pipe today so far.

1115 HTI continues to remove trash  
from trench #12.

Wahok Pupani  
1-22-97

58

1155 Break for lunch  
1250 Back to the OFCA. HTI continues  
to pre-erect. (southwest)  
The trench is approximately  
100 feet long about 5' deep  
trash was uncovered in this  
trench.

1330 I noticed HTI taking some  
sand from bench area  
along colfax and laying  
it in the ground near  
the extraction trench to  
facilitate equipment mobility.  
It is quite sloppy today.  
HTI indicated they may have  
to use this sand to tempora-  
rily back-fill the trench  
to prevent trench wall  
collapse and to avoid nearby  
surface track to fall back in  
the trench. I did not approve  
of this and told Lee that  
any excavated or benched  
material should either go  
back where it came from or

Wahok Pupani  
1-22-97

59

be moved to appropriate sports  
night area as per plan.  
1345 Bear talked with Andy of HTI  
regarding my concerns. Bear said  
HTI will use imported sand,  
brought onsite by YECI for their  
piping work, in the interim  
until he discusses with Pete  
Vest.

1400 YECI started trenching at bench  
near the southwest corner of  
#10 treatment bldg just north of the  
ACS fence. As they got started  
some high PID readings (96 ppb)  
were observed consistently. YECI  
halted work and went into  
discussions about upgrading to  
level C. YECI said they should  
be able to put that trench  
together by tomorrow and resume  
trenching inside the ACS plant.  
1430 HTI has completed trash  
removal from 70 feet of the trench in  
work is being done in level C.

Shuck Report  
1-22-97

60

- #11 PSES soils are being moved to north east part of the DA spoils area (north).  
1445 theerial HTI wants to cover the trench in the DA spoils area with a little bit of sand from stretched wire mesh lockpile along Colfax. I said to find no problem with that since the sand along Colfax is composed to the north to Hwy and naturally. Apparently, a heavy gravel cover would facilitate vehicle movement.  
1600 HTI drove for the day - soil contingency tomorrow. They probably have 10 to 15 feet of trench 12 ft to 14 ft.
- #12 Excavating along Colfax (excavating some) - trenching was as deep as 3 feet at some locations. I had to cover the trench with vegetation. YEC1 was prepared to work on level C.

Shuck Report  
1-22-97

61

- 1630 HTI completed relocation of PSES spoils over to the spoils night area.  
1640 Jim told me YEC1's Health & Safety officer actually observed high PSES readings (Not sure what equipment was being used.) There soils have been left in place and would be decontaminated in appropriate manner later on.  
1650 YEC1 has more or less completed the trenching/piping work around the building. Ben had indicated that PSES impacted soils amount to approx. 10 yards, off site.
- 1710

end

Ashok Puri  
1-23-97

62

0805 on site

Weather cloudy, 30°F, flares.  
Joe of HTI/Peter Wheeler told  
me that HTI is almost  
done with removing track  
from trench no. 12. They  
will only continue onto  
trench no. 13 after they have  
resolved the sand issue as  
was brought up yesterday.  
YECI is finishing up behind  
the treatment Bldg.

I observed picketing by local  
union at the front gate.

Called Steve and discussed  
several issues.

0850 Pete Vast and others are  
enroute for weekly meeting.

0900 YECI continues to work inside

#13 the plant south of the fence  
by the treatment building  
(southwest)

0930 I went to OFCA to check up on

HTI HTI had completed pre-  
excavation (trash removal) number

Ashok Puri  
1-23-97

63

#12: they have started pre-excavation  
along the barrier wall area in  
the general area of trench #11 and  
#12.

110 HTI continues to pre-excavate  
the barrier wall area.

130 Pete Vast came by and discussed several  
issues. He said the high PCB hit  
behind the building was incorrect.  
It was actually a PID hit  
indicating VOCs. This soil should  
be handled as VOCs < 500 ppm  
and placed in one of the skips area.

1200 Break for lunch

1250 Back to the trailer, YECI is still  
at lunch.

1320 YECI resumes trenching near the  
north fence.

1400 YECI trenching near the  
north fence (looking southwest)

1420 Go over to OFCA with Lee to locate  
the rubble mgmt area and misc.  
debris mgmt area.

1500 Seems like HTI is about done  
and no more trash removal/trenching

Shok Papani  
1-23-77

64

- is in progress.
- #15 Benching for barrier wall near extraction trench #11 (looking northwest)
- #16 Extraction trench #12 has been pre-excavated and temporarily back-filled (looking south)
- 1515 Go over to the trailer to find out why HTI is shut down and if YECI is still working.  
discussed with regarding HTI. He said he does not know anything about HTI's schedule.
- 1530 YECI continues to work inside the plant, they completed the trench from RR back to the ACS gate across the site trailer
- #17 Compaction of conveyance piping trench by YECI by the ACS gate across the site trailer (looking west/southwest)

Shok Papani  
1-23-77

65

- 1600 Check in with Al. He informed that HTI was shut down until more sand come in tomorrow morning. As Pete had told me earlier that they are going to use bed sand instead of leached sand by Coffey.
- 1610 YECI continues to do trenching inside the plant.
- 1650 off site.

end

Ashok Puri  
1-24-97

66

0810 on site

Weather: partly cloudy, cold, 25°  
Breezy

Decided we HPI is working on putting the trencher together. They are waiting for a part before they start benching.

YECI continues to work inside the ACS plant

#16. 0845 YECI trenching inside the plant (looking south).

#17. 1000 YECI trenching inside the plant (looking south-southeast)

#18. Trenching guys are harassing everyone going across the gate.

#19. Excavation/installation of water line & conveyance piping by YECI inside the plant. (looking west-southwest)  
Significant amount of water was encountered in the ditch north of the plant operations. Water is being kept within

Ashok Puri  
1-24-97

67

the trench.

1100. YECI continues to work inside the plant. HPI apparently has not started work on site as yet.

#21. Excavation/installation of water lines & conveyance piping by YECI inside the plant. (looking west)

1210. Ben stopped by and said they are going to get the gate systems to take control of picketing education.

1210. I told Ben and Lee that when YECI begins discharge line installation in the wetlands area, they must consider the situation where they might have to handle high PEs-impacted materials in case any spoils are generated.

1240. YECI continues to conduct installation activities

1300. Back for lunch

1330. Back to the site

YECI is still at lunch

W. Shook P. Papan  
1-24-97

68

W. Shook P. Papan  
1-24-97

1400 YECI continues trenching / piping  
installation inside the plant.  
1430 Lee stopped by and told me  
YECI is going to back-fill this  
strategic trench (~200'), and  
call it a day.

This drizzling night none.  
1500 Lee told me YECI is going  
to continue to work this  
weekend.

1540 YECI is back-filling this stretch  
of trench and has started  
excavating further.

1550 YECI stopped after the opera-  
tor noticed signs of a drum.

1600 Lee over to the side of the  
trench to take closer look.

The drum encountered by YECI  
(looking north northwest)  
appears like a damaged  
drum carcass with soils  
inside. YECI's Health &  
Safety officer will go near  
and examine.

1600 After examining the drum, YECI  
observed 400 ppm vinyl chloride  
and 122 ppm benzene (PhotoVOC  
set to 1:1 response). The suspect  
line drager tubes indicated  
4 ppm of benzene and vinyl  
chloride. The seal tags were taken  
outside of the drum harness. The  
YECI H&S officer indicated there  
could be other VOCs which were  
not tested for. He suggested upgr-  
ading to level 3. YECI shut down  
for the day. MW will meet with YECI  
at 169 trailer and discuss  
handling of the drum. It  
reminded Lee that the spill  
plan does address drum handling  
procedure which should be  
followed.

1700 Off site

and

Shankar Pappani  
1-27-97

10

0730 on site.

Weather 35°F, cloudy.  
Joe gave me an update on  
the site activities. He said  
on Saturday, YECI continued  
trenching and the next 60 feet  
or so, encountered a number  
of drums with PID reading  
as high as 700 ppm. YECI  
did not continue work in  
this area but continued  
beyond this area. Currently  
YECI and MW are discussing  
how to handle the drums  
situation. At the moment,  
YECI is shut down because  
the haul truck is shut down.  
Over the weekend, HTI installed  
an adaptor in one of the  
PACS sumps. ZITI has not done  
any trenching or intrusive work  
since then.

1000 Joe said they have decided  
to use some banded sand by  
Cofar for their stockpile inquiry.

Shankar Pappani  
1-27-97

11

To set up the barrier wall  
trencher in the northwest region of  
the OCHA. I told that I need to  
reverse line sampling of that sand  
stockpile. Don't know when the  
sampling is going to take place.  
Ben also indicated that HTI might  
conduct development of the PACS  
sumps today. He said that the  
development water would be staged  
in a portable tank and transferred  
to a surge tank in the treatment  
plant for eventual treatment and  
disposal.

1030 Go over to HTI's warehouse with  
Ben to talk with HTI about new  
plans. Andy of HTI said they  
intend to set up the barrier  
wall trencher on ground today  
but it will be couple of days  
before they can get construction  
started.

1100 YECI took an early lunch.  
1115 Talked to Joe about the  
gate system.

Joshua Pappas  
1-27-97

72

- 1145 Break for lunch  
1235 Back to the site  
1255 Called Sheri and Steve  
and leave messages with  
an update.  
1310 YECI resumed trenching inside  
the ACS plant.  
#23 YECI trenching inside the plant  
(looking west)  
#24 YECI uncovered some drums  
with high VC and Benzene  
readings in this area which  
was fenced temporarily  
(looking east)  
1330 Starting to snow heavily.  
1400 YECI stops working when the  
last vehicle stopped function-  
ally  
#25 Drum staging area (looking  
south)  
#26, #27 Backfilling drum or wall  
area with sand in the north-  
west area of OFCA.  
1515 Sheri told me YECI is shut  
down for the day!

Joshua Pappas  
1-27-97

73

- 1530 HTI continued to pick up the  
sand by Colfax and backfill  
the north west region of OFCA  
in the areas where trash was  
removed.  
1545 Sheri told me sometime over  
the weekend HTI constructed  
the drum pad with the sand  
by Colfax. Drum pad was con-  
structed just across the drum  
staging area. No intrusive work  
was involved.  
1600 off site

end

of Brock L. P. 1947

14

1415 on site  
weather Sunny, 0° F,  
wind chill -30 F  
Joe told me YECI had  
not resumed work since  
yesterday. They have not gotten  
their haul truck to move.  
HII continues to backfill  
the barrier wall area in  
the north west region of the  
cell.

1420 HII continues to backfill  
soil.

1425 YECI resumed work inside  
the plants.

1430 Break for lunch

1435 Back to the site.

YECI continues to do trenching  
inside the plant.

1445 Joe over to Ben by the trailer  
He said HII is having some  
trouble getting the sand in  
down to picketing. He said  
shortly today HII will conduct  
soil borings along the south

of Brock L. P. 1947

75

leg of the barrier wall to determine  
the extent of municipal refuse so  
that they can estimate sand quantity  
required.

1450 Joe over to the UICM HII continues  
to put backfill in the barrier  
area. They are also planning  
to set up the barrier wall trench

1458 #28 HII moving the barrier wall  
trencher (looking north-northwest)

1459 #27 HII conducting soil borings  
looking east to find out  
the depth to natural soil  
(looking east-northeast)

1500 Andy of HII came by and as per  
agreed that the refuse/dolomite section  
is to approx. 9 feet below ground

1510 Todd of NW over here to HII  
that he is not happy with the

quality of backfill material  
now being brought in. The  
material is essentially sludge.

1545 HII's Gornett mentioned that they  
are going to resume trenching  
by extraction trench #12

John P. Pufan  
1-28-97

76

1605 YECI continues to travel inside the plant. YECI's final comment by mail told me they have installed so feet of piping today. It said the current stretch of trenching (~60' long) is indicating high PI (~900 ppm) and LEL (7%) readings. So they are going to stop after excavating this stretch and install the pipes tomorrow.

1613 I caught up with Lee and asked him if YECI crew was aware that any spoils showing >500 ppm PID readings would be staged in the buried waste report area. I told him that the 60' long stretch where drums were encountered and the current cut stretch indicate presence of such spoils which should be allocated to the buried waste area.

John Pufan  
1-23-97

77

1625 Lee called Grated by HNU and went over by the excavation area to verify PID readings. Lee also informed that HCU is going to develop the POC's samples tomorrow.

1634 Lee obtained a reading of over 500 ppm. He said they may have taken a few samples over to UA spoils area to be going to go over to the UA spoils area with YECI crew and after verifying with HNU, will direct YECI to move those loads over to buried waste area.

#30 The stretch of trench inside the plant where YECI encountered over 500 ppm readings. The area was excavated and taped off overnight. (looking east)

1652 Lee came over and told me YECI is going to relocate that area load to the buried waste area right now.

Joshua Pufani  
1-28-97

78

- 16:17 YECT moving the 2500 ppm  
soils over to the buried waste  
area. HTI is done for the  
day. they did not conduct any  
trash removal activities today.
- 17:11 After removing the 2500 ppm  
soils, Lee checked around with  
HWA to see if there is any  
more of such soils present.  
There was none.

17:30 off site

end

Joshua Pufani  
1-29-97

79

- 0845 on site.  
Weather: Sunny, 10°F  
WINDCHILL +2°F  
Both YECT and HTI resumed  
work this morning. Annelia  
of MW is onsite today to  
see HTI's benching activities.
- 0850 Asked Ben about sand sampling.  
He said Pete had confirmed  
earlier about one sample for  
full scan with two GA/BC samples.
- 0855 Ben called Pete Knight. Had a  
conference call with Sheri.
- 0900 Based on discussions, Pete agreed  
on two samples for full scan.  
Sheri will check back with Pete  
regarding GA/BC samples.
- 0915 Co. over by YECT. They continue  
#31 to do trenching. They are no  
longer getting high PID readings.
- 1005 Co. over to DECT to check up on  
HTI. They have started benching  
new extraction trench #13.
- #32, #33 working on the buried  
waste trench.

Joshua Lufkin  
1-29-97

80

- 1100 Lee said he is going to block off personal vehicle access to the south parts of OFCA to keep them away from various spills mgmt areas.
- 1100 HTI shuts down temporarily when they encounter what they are calling "medical waste". They don't know how to handle that.
- 1120 YECI continues to <sup>do</sup> trenching.
- 1150 Break for lunch.
- 1238 Back to the site.
- 1310 YECI continuing to do trenching inside the plant.
- 1330 Ben told me the "medical waste" which HTI operator mentioned was basically an IV bag. He said HTI will put aside any such wastes, decontaminate and continue with trenching.
- 1350 #34 YECI trenching near the plant across the border (looking southwest).

Joshua Lufkin  
1-29-97

81

- #35 YECI back filling the trench (looking south-southwest).
- 1400 Lee told me HTI is going to resume trenching activities.
- 1420 Called Steve M at the office and discussed the QDAPP requirements on sand sampling.
- 1452 Over to the OFCA to check up on HTI.
- NEW #1 Ben excavation / trash removal
- 1520 along the south-west leg of the barrier wall alignment (looking north).
- #2 Barrier wall trencher set in place. This area of the barrier wall alignment is the shallowest. Therefore approx. 4 feet high sand platform was built in this area (looking west).
- 1615 HTI is done setting the trench.
- 1625 Go over by YECI. They are continuing to install the piping near the plant.
- 1630 Meet up with Ben and discuss on going and upcoming activities.

Ashoka Pipani  
1-29-97

82

Ben said HTI is not going to  
work through the weekend.

1650 off site

end

Ashoka Pipani  
1-30-97

83

0900 on site

Weather cloudy, 15°F.  
Lee told me: Joe Adams, Rob  
Vest and some others from M-W  
are inside to attend the weekly  
meeting. HTI has not resumed  
trash removal activities as they are  
waiting to get some scum. They,  
however, continue to work on their  
trenches.

0910 YEC1 has two crews onsite. One  
crew continues to install  
the water <sup>line</sup> and conveyance piping.  
The other crew is setting up to  
install the conveyance piping  
along the PGCS.

0921 Begin the PGCS conveyance piping  
installation. Trench approx. 4' feet  
deep.

#3, #4 YEC1 installing PGCS  
conveyance piping.

1100 YEC1 crews continue to work.  
The PGCS conveyance piping includes  
2" HDPE water line (influent),  
1" plastic pipe for anaerobic and

Ashok Gupta  
1-30-97

84

a 1" plastic pipe for pump  
sensor probes.

1125 Lee showed me a picture of  
Hill setting up the decom pad  
and the OFCA.

1145 Break for lunch

1215 Back to the site.

YECI crews continue to work

#5 YECI installed water line by  
1300. The ACS fence gate across the  
treatment building (looking  
west-northwest)

1340 Installing PGCS piping (looking  
#6 west)

1405 Both YECI crews are now working  
on the water line installation.

1445 Go over to OFCA to check  
up on HTL. HTL's crew is  
working to set up the rammer  
wall trencher. No intensive  
work by HTL today.

1505 Back to YECI work site.

1537 #7 setting up the fire hydrant.  
(looking west)  
From this point on, a copper

Ashok Gupta  
1-30-97

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tubing will be run to the building  
after pressure testing. Don't know  
when the pressure testing of water  
line will take place.

1600 YECI crew continues to backfill  
the final stretch of the water  
line trench.

1630 off site.

end



Ashtok Pufani  
1-31-97

88

- 1105 HTI has contracted an outside company to put the pieces together on the barrier wall trencher
- 1135 YECI breaks for lunch
- 1245 YECI back to the site they continue to work on the PGCS piping.
- 1335 YECI almost completely PGCS conveyance piping installed.
- 1425 Go over to OFCA to mark the buried waste and PGCS soils located along the barrier wall alignment.
- 1445 Finish marking those areas.
- 1500 Back to the trailer Ben has received a fax from Steve M. from office regarding GAPP requirements for Colfax sand sampling.
- 1540 YECI has started backfilling the PGCS conveyance piping trenches
- 1570 Ben discussed the Block's activities with GAPP with [unclear]

Ashtok Pufani  
1-31-97

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- and said they would be ready to follow the GAPP and sample tomorrow
- 1615 YECI almost completely backfilled the PGCS conveyance piping trenches and will grade the area later. Some additional backfill sand was used. No excess spoils were generated during this activity.
- 1625 off site.

end

Ashok Subani  
2-1-97

90

1235 On site Got to the site due  
to vehicle problems.  
Weather cloudy, 40°F.  
Ben told me Armelle is here  
to help him get the sampling  
done. YECI started on the  
demon removal couple of  
hours ago. They are conducting  
demon removal activities  
inside the ACS plant under  
level B.

1340 Go over to OFCA to oversee  
the colfax sand sampling.  
#10 Collecting colfax sand sample  
in the north half of the pile.

1415 (looking southwest)  
#11, #12 Compositing colfax sand  
sample (looking east).  
The colfax north sample was  
collected within the first  
50 feet to the north of the  
pile. The colfax south sand  
sample was collected within  
100 feet to the south.

1420 Collect HTI backfill sand  
sample.

Ashok Subani  
2-1-97

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1435 Go back to the trailers.  
1455 Collect onsite sample with  
deionized water.

1500 Go over to the YECI work area.  
The crew is conducting trenching,  
piping installation and drum removal  
activities under level B,  
#13, #14. Drum removal activities  
by YECI.

Lee told me YECI is going slow  
because of level B. They have observed  
a highest reading of 8 ppm<sup>VC</sup> on drainage  
tubes. All drums, partially filled  
or filled, partially intact or fully  
intact, are being overpacked in  
55-gallon yellow overpack drums.  
Some of the drums were leaking.  
YECI is pumping the liquids in the  
drains into a 55-gallon drum.  
Pumping is being done just sufficient  
to facilitate laying the pipes.  
This drum is also going to be  
staged along with other drums.  
1600 Ben and Armelle collect the  
remaining two samples, one from

Shole Pump  
2-1-97

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stone backfill and the other  
from sand backfill both  
brought in by YECI. Finally,  
they also collected a suitable  
sample.

1640 YECI continues to <sup>do</sup> remove  
removal activities.

1725 All drums have been removed  
apparently. Joe told me  
only the drums which are on  
the way of water line will be  
removed. He said some  
drums could be noticed on  
the sides of the trench.  
Silt and crushed drums/  
drum carcasses from this area  
have been stockpiled alongside  
and would be taken care  
later the trench was  
backfilled until tomorrow  
when water line and  
conveyance piping would  
be installed.

1744 off site

end

Shole Pump  
2-3-97

93

0850 On site

Weather sunny, 40°F.  
Ben told me YECI completed  
installation of water line and  
conveyance piping in the down  
area. The hot soil and crushed  
down pile has been temporarily  
placed on sand covered with plastic

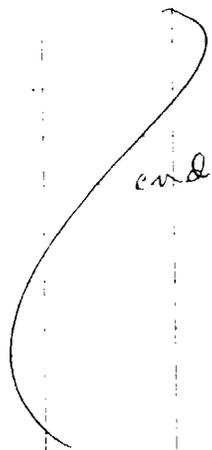
0700 Ben said HTI will be onsite  
tomorrow, YECI plans to  
relocate all down overpacks  
(a total of 41 overpack drums)  
to the down staging area.  
Ben also said 3 to 4 additional  
drums were encountered and  
removed during installation  
activities yesterday. After down  
relocation activities, YECI will  
set up for pressure testing of the  
water line.

#15, #16, #17 Drums and silt stockpile  
temporarily located alongside the  
trench. YECI is relocating the drums  
to the down staging area.

Ashok Purbani  
2-3-97

94

- 1100 YECI continued to relocate drums.
- 1150 Break for lunch
- 1255 Back to the site. YECI continues to relocate drums to the drum staging area.
- 1340 #18, #19 staging drums in the drum staging area in the OFCA.
- 1440 YECI finished removing all the drums. They will wait for Ben to tell them what to do with the soil stockpile.
- 1500 Lee told me YECI is done for the day. They will basically set up to do pressure testing of the water line.
- 1520 off site



Ashok Purbani  
2-5-97

95

- 0915 Onsite  
Weather cloudy, 35°F  
Hammelin on site. The soil  
YECI is going to begin pressure testing and chlorination of water line in couple of hours.  
YECI installed the conveyance piping from the building to the trench yesterday. They will probably begin installing some left over portions of the barrier wall conveyance piping.
- 0935 Go over to OFCA to check up on HTI.
- #20 The soil stockpile near the drum area inside the plant.  
(looking south)
- #21 YECI doing barrier wall conveyance piping near the southwest corner of the ACS plant
- #22 Drum staging area. Drums encountered inside the plant were staged here. (looking southwest)
- #23 Deion pad across the drum staging area (looking north)

Worked in team  
2-5-97

96

- #24 HTI loading sand to backfill the barrier wall trench.
- 10:00 HTI continues to do pre-excitation of barrier wall trench. The depth of pre-excitation in the southwest region of the OFCA is approx. 12 feet.
- 10:55 HTI stops excavating. Apparently they encountered a "washing machine with oil" and HTI's safety officer wanted to confirm that his instrument was working OK. They are almost through the buried waste area along the western leg of the barrier wall. Non-refuse soils in this area were transported to the buried waste spoils area. Approximately 5 drums were encountered in this general area. Drums have been temporarily staged alongside the trench.

Worked in team  
2-5-97

97

- 1100 I reiterated to Lee that the drums need to be overpacked and placed in the drum staging area.
- 1130 HTI continues to pre-excite in the southwest region of the OFCA
- #1  
#2  
#3 } Lee indicated the washing machine will be placed in the miscellaneous debris area and enclosed in plastic.
- 1155 Break for drinks
- 12:50 Back to the site. YECI continues to do trenching inside the plant near the soil wash tracks. Ben told me he is going to have Lee take PID readings of the soil pile by the drum area outside the plant. Based on those readings, they will decide what to do with the pile.
- 1330 #4 YECI installed the conveyance piping from the treatment slide and the P6205 piping (looking north)
- 1345 #5 conveyance piping near the #6 RR tracks inside the plant (looking south)

Shirk <sup>Peffani</sup>  
5-97

98

1430 Go over by the soil pile to  
take some PD readings with Lee  
Lee got consistently <sup>high</sup> readings of  
300 to 400 ppm

1440 YECI is done backfilling the  
conveyance piping trench near  
the RR tracks in the north  
west corner of the plant

1455 ATI indicated they are not  
going to pre-excavate anymore  
today. They will try to  
test run the barrier wall  
trencher for about 40'.

1515 YECI continues to work on the

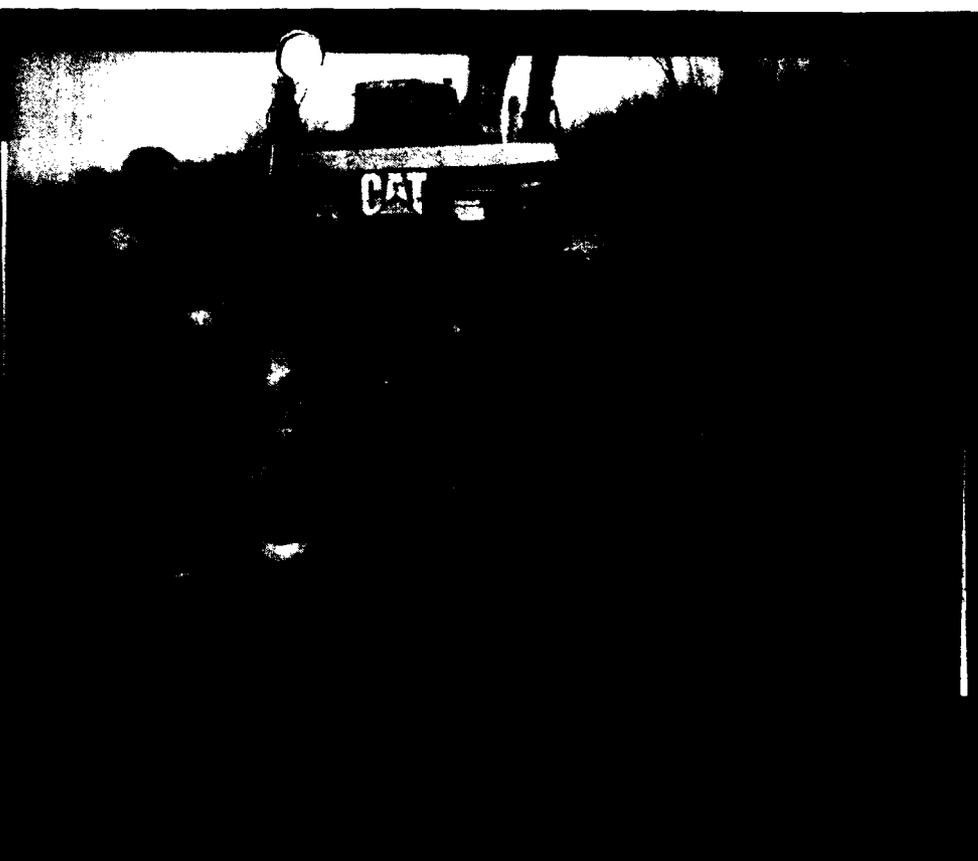
#7 junction boxes for the PGCS

1540 Go over to the DECA. ATI  
has decided its too late in  
the day to do the test run  
on the barrier wall construction  
so they will begin construction  
tomorrow.

1615 Ben said they are not going  
to move the soil pile in the  
abnorm area for a couple of days

1625 off site

end



Site: American Chemical Services, Inc. RDT/RA

Proj. #: 71670.600

Roll: 1 Photo #: 1

Date: 12-30-96 Time: 1400

Photographer: Ashok Rupani

Description: Facing east. Excavating municipal waste in the south west region of the off-site containment area (OCA) to install conveyance piping (1 inch air line) and a 2 inch influent line associated with the barrier wall extraction system (BWES).

Site: American Chemical Services, Inc. RDT/RA

Proj. #: 71670.600

Roll: 1 Photo#: 2

Date: 12-30-96 Time: 1430

Photographer: Ashok Rupani

Description: Facing north. Excavating municipal waste and backfilling with clean sand in the south west region of the off-site containment area (OCA) to install conveyance piping associated with the BWES.



Site: American Chemical Services, Inc. RD/ERA

Proj. #: 71670.600

Roll: 3 Photo #: 3

Date: 01-03-97 Time: 1330

Photographer: Ashok Rupan

Description: Facing south east. Drums encountered during excavation in the south west region of the OPCA. Excavation was being conducted to install conveyance piping associated with the BWFS.



Site: American Chemical Services, Inc. RD/ERA

Proj. #: 71670.600

Roll: 2 Photo #: 4

Date: 01-03-97 Time: 1330

Photographer: Ashok Rupan

Description: Facing south east. Drums encountered during excavation in the south west region of the OPCA. Excavation was being conducted to install conveyance piping associated with the BWFS.



Site: American Chemical Services, Inc. RDEFA

Proj #: 71670,600

Roll: 1 Photo #: 5

Date: 01/08/97 Time: 1400

Photographer: Ashok Rupani

Description: Facing north-east. The drums shown in Photo #3 and Photo #4 were temporarily covered with plastic and staked within buried waste spoils management area (BWSMA) set up in accordance with the spoils management plan(SMP).



Site: American Chemical Services, Inc. RDEFA

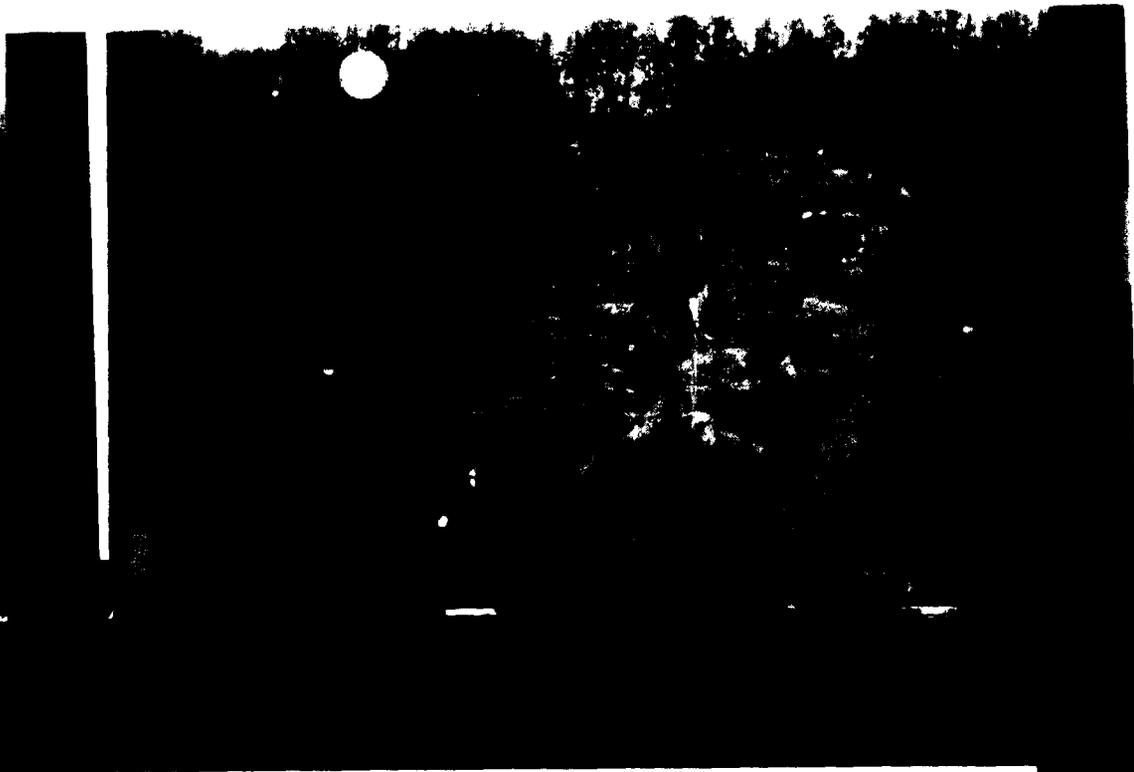
Proj #: 71670,600

Roll: 1 Photo #: 6

Date: 12/31/96 Time: 1020

Photographer: Ashok Rupani

Description: Facing north east. Installing BWS conveyor (see page 12) along the western leg of the barrier wall along the



Site: American Chemical Services, Inc. RDI/RA

Proj. #: 71670.600

Roll: 1 Photo #: 7

Date: 12-31-96 Time: 1020

Photographer: Ashok Rupam

Description: Facing south east. Orange stakes showing the alignment of BWFS conveyance piping installed in the north-west region of the OICA.

Site: American Chemical Services, Inc. RDI/RA

Proj. #: 71670.600

Roll: 2 Photo #: 8

Date: 01-08-97 Time: 1415

Photographer: Ashok Rupam

Description: Facing north. Orange stakes showing the alignment of BWFS conveyance piping installed in the north-west region of the OICA.



Site: American Chemical Services, Inc. RIDGERS

Proj. #: 71670.600

Roll: 1 Photo #: 9

Date: 12-31-96 Time: 1020

Photographer: Ashok Rupani

Description: Facing south-west. Installing BWES conveyance piping along the western leg of the barrier wall alignment.

Site: American Chemical Services, Inc. RIDGERS

Proj. #: 71670.600

Roll: 1 Photo #: 10

Date: 12-31-96 Time: 1400

Photographer: Ashok Rupani

Description: Facing east. The excess soils/municipal waste generated during excavation for BWES conveyance piping are to be placed within the upper aquifer soils management area (UASMA) set up in accordance with the SMP.



Site: American Chemical Services, Inc. RD-FRA  
Prop #: 71670,600

Roll: 1 Photo #: 11

Date: 12-31-96 Time: 1400

Photographer: Ashok Rupani

Description: Facing south-east. The excess soils/municipal waste generated during excavation for BWES conveyance piping are being loaded on to the haul truck for transport to the CASMA set up in accordance with the SMP. The backfilling of the excavation continued simultaneously.



Site: American Chemical Services, Inc. RD-FRA

Prop #: 71670,600

Roll: 2 Photo #: 12

Date: 01-07-97 Time: 1130

Photographer: Ashok Rupani

Description: Facing north-east. Water accumulated at the south end of the BWES conveyance piping trench in the south west region of the OFCA.



Site: American Chemical Services, Inc. RDI/ERA

Proj. #: 71670.600

Roll: 1 Photo #: 13

Date: 01-02-97 Time: 1100

Photographer: Ashok Rupani

Description: Facing south west. BWES conveyance piping trench in the south-west region of the OFCA partially backfilled with clean sand

Site: American Chemical Services, Inc. RDI/ERA

Proj. #: 71670.600

Roll: 2 Photo #: 14

Date: 01-07-97 Time: 1115

Photographer: Ashok Rupani

Description: Facing south. Cleaning up the area where BWES conveyance piping was installed in the OFCA



Site: American Chemical Services, Inc. RDT-RA

Proj. #: 71670.600

Roll: 2 Photo #: 15

Date: 01-08-97 Time: 1415

Photographer: Ashok Rupani

Description: Facing north-west. Orange stakes showing the alignment of BWFS conveyance piping installed along the western leg of the barrier wall alignment in the OICA.



Site: American Chemical Services, Inc. RDT-RA

Proj. #: 71670.600

Roll: 2 Photo #: 16

Date: 01-03-97 Time: 1035

Photographer: Ashok Rupani

Description: Facing south-east. Excavating just north of the ACS-01 building to install BWFS conveyance piping. A 4 inch potable water line to the treatment building was also installed in the same trench starting at the excavation.



Site: American Chemical Services, Inc. RDI-RA

Proj. #: 71670,600

Roll: 2 Photo #: 17

Date: 01-03-97 Time: 1100

Photographer: Ashok Rupani

Description: Facing south. Backfilling the water line/BWFS conveyance piping trench inside the ACS facility. The trench sections located inside the ACS facility were backfilled with gravel.



Site: American Chemical Services, Inc. RDI-RA

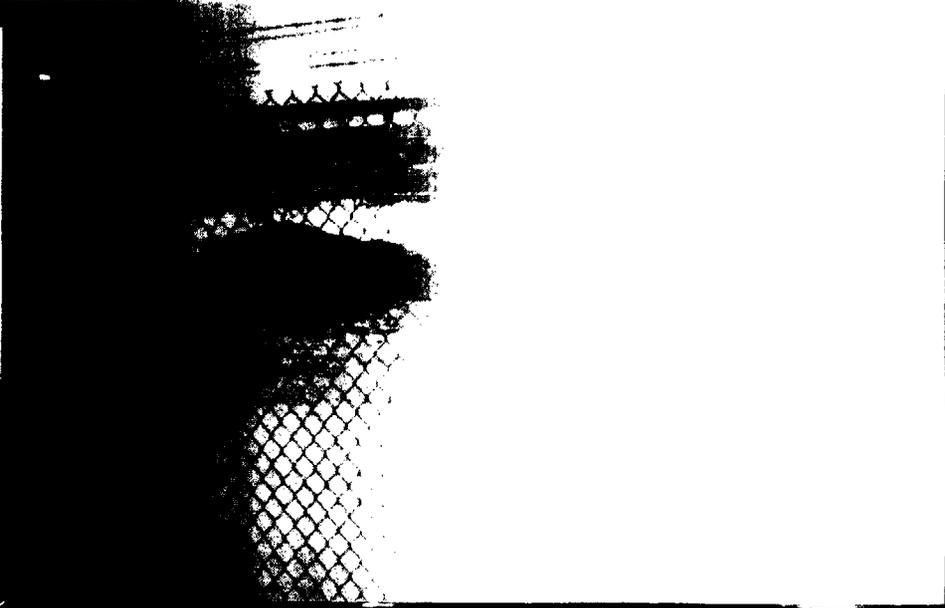
Proj. #: 71670,600

Roll: 2 Photo #: 18

Date: 01-06-97 Time: 1040

Photographer: Ashok Rupani

Description: Facing south. Loading the haul truck with excess gravel generated during water line BWFS conveyance piping installation north of the ACS office building.



Site: American Chemical Services, Inc. RDT-RA

Proj. #: 71670.600

Roll: 2 Photo #: 19

Date: 01-06-97 Time: 1055

Photographer: Ashok Rupani

Description: Facing north west. Excess soils generated during water line/BWES conveyance piping installation are being placed in the UASMA in accordance with the SMP.

Site: American Chemical Services, Inc. RDT-RA

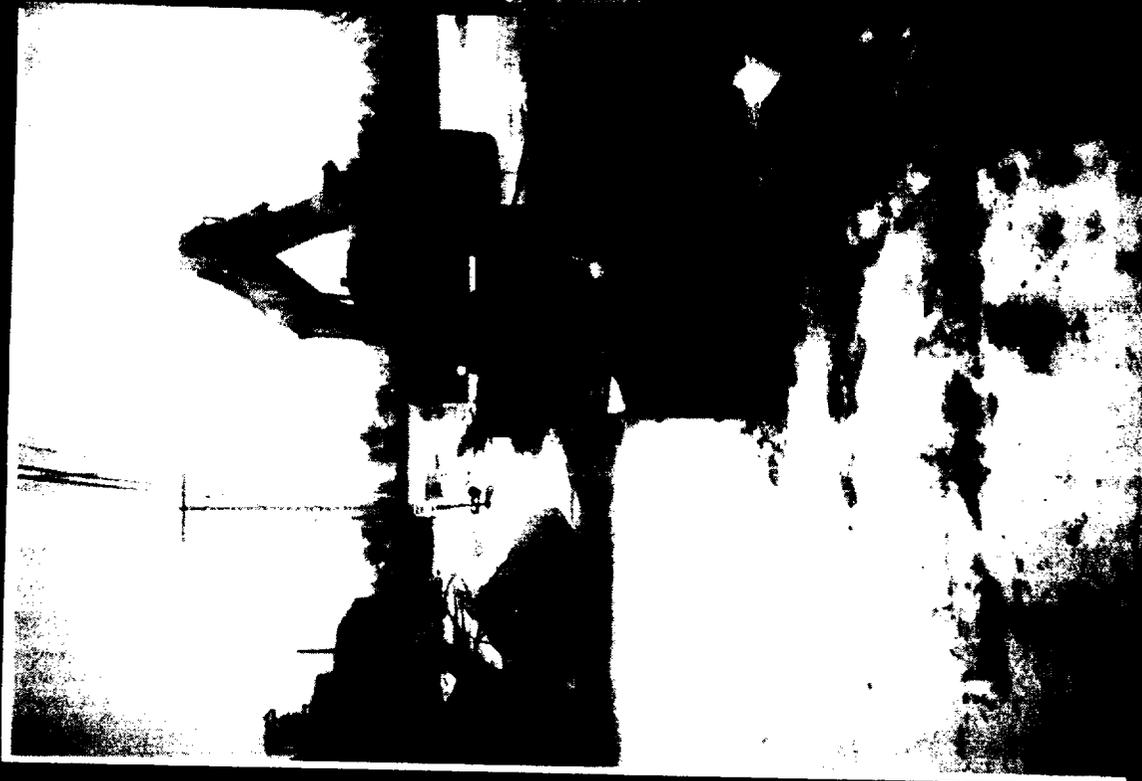
Proj. #: 71670.600

Roll: 2 Photo #: 20

Date: 01-09-97 Time: 1430

Photographer: Ashok Rupani

Description: Facing west. Excavating inside the ACS facility to install water line/BWES conveyance piping.



Site: American Chemical Services, Inc. RD/ERA  
Proj. #: 71670.600  
Roll: 5 Photo #: 21  
Date: 01-21-97 Time: 1115  
Photographer: Ashok Rupani  
Description: Facing west. Installing water line BWES conveyance  
piping inside the ACS facility.



Site: An... Chemical Services, Inc. RD-FRA  
Proj. #: 71640.000  
Roll: 3 Photo #: 22  
Date: 01-21-97 Time: 1115  
Photographer: Ashok Rupani  
Description: Facing west. Installing water line BWIS conveyance  
piping inside the ACS facility.



Sac. American Chemical Services, Inc. RD/ERA  
Proj. #: 71670,600  
Roll: 3 Photo #: 23  
Date: 01-21-97 Time: 1115  
Photographer: Ashok Rupani  
Description: Facing west. Installing water line/BWIS conveyance  
piping inside the ACS facility



Site: American Chemical Services, Inc. RD-FRA  
Proj. #: 71670,600  
Roll: 3 Photo #: 24  
Date: 01-21-97 Time: 1:15  
Photographer: Ashok Rupani  
Description: Facing north-west. Installing water line BWFS  
conveyance pipe inside the ACS facility.



Site: American Chemical Services, Inc. RD ERA

Proj. #: 71670.600

Roll: 3

Photo #: 25

Date: 01-23-97

Time: 1000

Photographer: Ashok Rupani

Description: Facing south-east. Loading the haul truck with excess soils generated during water line DWIS conveyance piping installation just east of the fence located along the western side of the ACS facility.



Site: American Chemical Services, Inc. RDEFA  
Proj. #: 71670,600  
Roll: 3 Photo #: 26  
Date: 01-23-97 Time: 1530  
Photographer: Ashok Rupani  
Description: Facing east. Compacting the sand backfill in the BWIS  
conveyance piping trench installed just east of the fence  
located along the western side of the ACS facility.



Site: American Chemical Services, Inc. RD:ERA  
Proj. #: 71670,600  
Roll: 3 Photo #: 27  
Date: 01-24-97 Time: 0845  
Photographer: Ashok Rupani  
Description: Facing south-west. Excavating inside the ACS facility to  
install water line BWFS conveyance piping.



Site: American Chemical Services, Inc. RDEFA  
Proj #: 71670.600  
Roll: 3 Photo #: 28  
Date: 01-24-97 Time: 11:30  
Photographer: Ashok Rupani  
Description: Facing south-east. Excavating inside the ACS facility to  
install water line BWFS conveyance piping.



Site: American Chemical Services, Inc. RD/ERA  
Proj. #: 71670.600  
Roll: 3 Photo #: 29  
Date: 01-24-97 Time: 1045  
Photographer: Ashok Rupani  
Description: Facing south-west. Backfilling the water line:BWES  
conveyance piping trench with gravel.



Site: American Chemical Services, Inc. RIDGEMONT  
Loc.: 71670.000  
Roll: 3 Photo #: 30  
Date: 01-24-97 Time: 1130  
Photographer: Ashok Rupani  
Description: Facing west. Installing the water line BWFS conveyance piping inside the ACS facility.



Site: American Chemical Services, Inc. RD:ERA

Proj. #: 70,600

Roll: 3 Photo #: 31

Date: 01-27-97 Time: 1310

Photographer: Ashok Rupani

Description: Facing south. Drums were encountered in this area during installation of water line/BWES conveyance piping. This area was temporarily fenced for safety reasons.



Site: American Chemical Services, Inc. RDI RA  
Proj. #: 71670,600  
Roll: 4 Photo #: 32  
Date: 02-01-97 Time: 1500  
Photographer: Ashok Rupani  
Description: Facing south-east. Drum removal and overpacking  
activities being conducted in the area shown in Photo  
#31.



Site: American Chemical Service - ve. RD/ERA  
Proj. #: 71670.600  
Roll: 4 Photo #: 33  
Date: 02-01-97 Time: 1500  
Photographer: Ashok Rupam  
Description: Facing north-west. Drum removal and overpacking  
activities being conducted in the area shown in Photo  
#31.



Site: American Chemical Services, Inc. KDTIRA

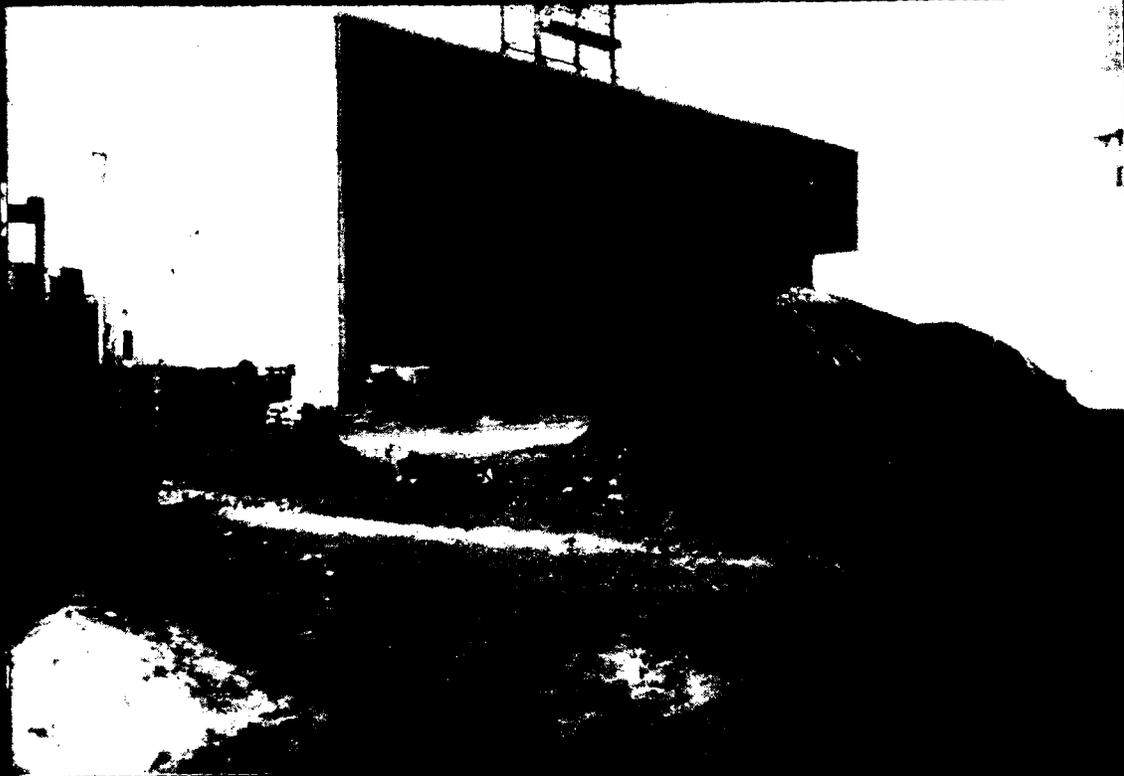
Proj #: 71670,600

Roll: 4 Photo #: 34

Date: 02-03-97 Time: 1600

Photographer: Ashok Rupari

Description: Facing south-west. Drums removed/overpicked from the area shown in Photo #31 were temporarily staged in the same general area just south of the drum excavation.



Site: American Chemical Services, Inc. RD FRA

Proj. #: 71670.600

Roll: 4 Photo #: 35

Date: 02-03-97 Time: 1000

Photographer: Ashok Rupani

Description: Facing south-west. The excess soils generated during drum removal activities from the area shown in Photo #34 indicated elevated PID readings. These soils were temporarily staged and covered with plastic in the same general area just north of the drum excavation.



Site: American Chemical Services, Inc. RDI/RA

Proj. #: 71670.600

Roll: 4 Photo #: 36

Date: 02-05-97 Time: 0935

Photographer: Ashok Rupani

Description: Facing south. The excess soils generated during drum removal activities from the area shown in Photo #31 indicated elevated PID readings. These soils were temporarily stored and covered with plastic in the same general area just north of the drum excavation.



Site: American Chemical Services, Inc. RD:ERA  
Proj. #: 71670.600  
Roll: 4 Photo #: 37  
Date: 02-03-97 Time: 1000  
Photographer: Ashok Rupani  
Description: Facing south-east. Drums shown in Photo #34 are being  
relocated to the drum staging area set up in the OFCA in  
accordance with the SMP.



5 American Chemical Services, Inc. RD-FRA  
Proj. #: 71670.600  
Roll: 3 Photo #: 38  
Date: 01-27-97 Time: 1:00  
Photographer: Ashok Raptur  
Description: Facing southwest. Dump staging area set up in the  
OICA in accordance with the SMP



Site: American Chemical Services, Inc. RD/ERA  
Proj. #: 71670.c.c.  
Roll: 4 Photo #: 39  
Date: 02-03-97 Time: 1340  
Photographer: Ashok Rupani  
Description: Facing south. Drums shown in Photo #34 are being placed in the drum staging area.



Site: American Chemical Services, Inc. RDE/RA

Proj. #: 71670.600

Roll: 4 Photo #: 40

Date: 72-03-97 Time: 13:00

Photographer: Ashok Rupani

Description: Facing south-east. Drums shown in Photo #54 are being placed in the drum staging area.



Site: American Chemical Services, Inc. RD/ERA  
Proj. #: 71670.600  
Roll: 3 Photo #: 41  
Date: 01-27-97 Time: 1310  
Photographer: Ashok Rupani  
Description: Facing south-west. Excavating to install water line/BWES conveyance piping just west of the drum area inside the ACS facility shown in Photo #51



Site: American Chemical Services, Inc. RDI/RA

Proj. #: 71670.600

Roll: 4 Photo #: 42

Date: 01-30-97 Time: 1235

Photographer: Asbok Rapan

Description: Entering south-east. Excavating to install water line just west of the fence located along the western side of the ACS facility.



Site: American Chemical Services, Inc. RDEFA  
Proj. #: 71670.600  
Roll: 4 Photo #: 43  
Date: 01-30-97 Time: 1539  
Photographer: Ashok Rupani  
Description: Facing south-east. Installing fire hydrant near the south-east corner of the treatment building



Site: American Chemical Services, Inc. RDTRA  
Proj. #: 71670.660  
Roll: 4 Photo #: 11  
Date: 01-30-97 Time: 1:53P  
Photographer: Ashok Rupan  
Description: Facing south. Installing fire hydrant near the south-east  
corner of the treatment building.



Site: American Chemical Services, Inc. RDEFA  
Proj. #: 71670.600  
Roll: 4 Photo #: 45  
Date: 02-05-97 Time: 0935  
Photographer: Ashok Rupani  
Description: Facing east. Excavating to install BWES conveyance piping in the south-west portion of the ACS facility.



Site: Astok Chemical Services, Inc. RDEFA  
Proj. #: 71600000  
Roll: 5 Photo #: 46  
Date: 02/05/97 Time: 1345  
Photographer: Astok Ripani  
Description: Facing south. Insulating BWIS conveyance piping in the south-west portion of the ACS facility.



Site: Atlantic Chemical Services, Inc. RD/ERA  
Proj. #: 710 0,600  
Roll: 5 Photo #: 47  
Date: 02-05-97 Time: 1545  
Photographer: Ashok Rupani  
Description: Facing south-east. Installing BWFS conveyance piping in the south-west portion of the ACS facility. The conveyance piping will eventually go underneath the railroad tracks shown.



Site: American Chemical Services, Inc. RD 1RA  
Proj. #: 71670.609  
Roll: 5 Photo #: 48  
Date: 02-05-97 Frame: 1336  
Photographer: Astor Ripert  
Description: Facing west. Conveyance piping for the Perimeter  
Groundwater Containment System (PGCS) was installed  
through this area.



Site: American Chemical Services, Inc. RDI-RA

Proj. #: 71670.600

Roll: 1 Photo #: 49

Date: 01-03-97 Time: 1020

Photographer: Ashok Rupani

Description: Facing south. Installing northern section of the PGCS extraction trench.

Site: American Chemical Services, Inc. RDI-RA

Proj. #: 71670.600

Roll: 1 Photo #: 50

Date: 01-02-97 Time: 1020

Photographer: Ashok Rupani

Description: Facing south. Installing northern section of the PGCS extraction trench.



Site: American Chemical Services, Inc. RD14RA

Proj. #: 71670.600

Roll: 1 Photo #: 51

Date: 01-02-97 Time: 1430

Photographer: Ashok Rupani

Description: Facing south west. Installing northern section of the PICS extraction trench.

Site: American Chemical Services, Inc. RD14RA

Proj. #: 71670.600

Roll: 1 Photo #: 52

Date: 01-02-97 Time: 1430

Photographer: Ashok Rupani

Description: Facing south. Surveying the elevation of the trench, tray during installation of the northern section of the PICS extraction trench.



Site: American Chemical Services, Inc. RDT/RA

Proj. #: 71670.600

Roll: 2 Photo #: 53

Date: 01-08-97 Time: 1000

Photographer: Ashok Rupani

Description: Facing south. Installing a 6-inch sump at the north end of the southern section of the PGCS extraction trench.

Site: American Chemical Services, Inc. RDT/RA

Proj. #: 71670.600

Roll: 2 Photo #: 54

Date: 01-08-97 Time: 1030

Photographer: Ashok Rupani

Description: Facing south-west. Installing southern section of the PGCS extraction trench.



Site: American Chemical Services, Inc. RD/ERA

Proj. #: 71670.600

Roll: 2 Photo #: 55

Date: 01-08-97 Time: 1345

Photographer: Ashok Rupani

Description: Facing south. Completed installation of the southern section of the PGCS extraction trench. Also shown is the clean out at the south end of the trench.

Site: American Chemical Services, Inc. RD/ERA

Proj. #: 71670.600

Roll: 2 Photo #: 56

Date: 01-15-97 Time: 1400

Photographer: Ashok Rupani

Description: Facing west. Installing central section of the PGCS extraction trench.



Site: American Chemical Services, Inc. RD, FRA

Proj. #: 71670.600

Roll: 3

Photo #: 57

Date: 01-22-97

Time: 0950

Photographer: Ashok Rupani

Description: Facing north-east. Excess soils generated during the installation of the PGC'S extraction trench are being loaded on to the haul truck for transport to the UASMA in the OECA.



Site: American Chemical Services, Inc. RDT/RA

Proj. #: 711

Roll: 4 Photo #: 58

Date: 01-30-97 Time: 1050

Photographer: Ashok Rupani

Description: Facing south. Excavating and installing the PGRS conveyance piping which includes 2 inch influent line, 1 inch electrical control pipe and 1/2 inch pipe for stamp pump sensor probes.



Site: America: Chemical Services, Inc. RD/ERA  
Proj. #: 71670.600  
Roll: 4 Photo #: 59  
Date: 01-30-97 Time: 1900  
Photographer: Ashok Rupani  
Description: Facing south. Excavating and installing the PGCS  
conveyance piping. Backfilling is also being conducted  
simultaneously.



Site: American Chemical Services, Inc. RD/ERA  
Prop. #: 71670.600  
Roll: 4 Photo #: 60  
Date: 01-30-97 Time: 7:54  
Photographer: Ashok Rupani  
Description: Laying swath, installing the POC'S conveyance piping.



Site: American Chemical Services, Inc. (ACS) ERA

Proj. #: 71670.600

Roll: 4

Photo #: 61

Date: 01/31/01

Time: 11:30

Photographer: Ashok Rajan

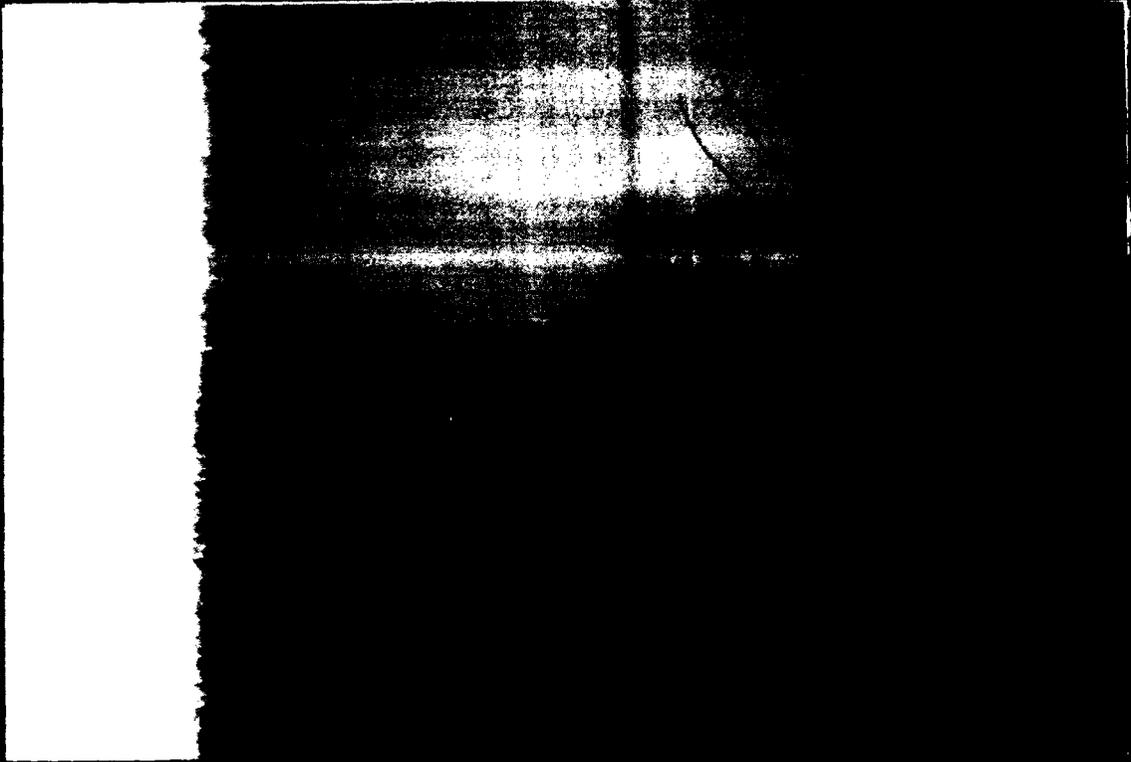
Description: Facing south. Installing the PGC S conveyance piping a few feet west of the 2' radius storm piping (see drawing).



Site: American Chemical Services, Inc. RDT/RA  
Proj. #: 71670.600  
Roll: 3 Photo #: 68  
Date: 01-23-97 Time: 1500  
Photographer: Ashok Rupani  
Description: Facing south. Complete preservation for extraction well #12.



Site: American Chemical Services, ... RD ERA  
Proj. #: 71670.600  
Roll: 3 Photo #: 69  
Date: 01-23-97 Time: 1800  
Photographer: Ashok Rajan  
Description: Facing north-west. North-west region of the OCA prior  
to initiation of barrier wall installation project.



Site: American Chemical Services, Inc. RDEFA  
Proj. #: 71670.600  
Roll: 5 Photo #: 70  
Date: 02/05/97 Time: 11:30  
Photographer: Ashok Rupin  
Description: Facing west. Pre-excavating along the barrier wall alignment



Site: American Chemical Services, Inc. RD.FRA  
Proj. #: 71670.600  
Roll: 5 Photo #: 71  
Date: 02-05-97 Time: 1130  
Photographer: Ashok Rajan  
Description: Facing west. Pre-excavating along the barrier wall alignment. Excess soils from the pre-determined buried waste (VOC's 10,000 ppm and PCBSS 10 ppm) area are being staged in the BWSMA in accordance with the SMP.



Site: American Chemical Services, Inc. RDEFA

Proj. #: 71670.600

Roll: 4

Photo #: 72

Date: 01-29-97

Time: 1520

Photographer: Asid, Rupin

Description: Facing south-west. Begin barrier wall installation in the north-west region of the OPCA. Also notice the 4-foot high bench constructed in this area to attain required elevations.



Site: American Chemical Services, Inc. RD:ERA  
Proj. #: 71670.600  
Roll: 4 Photo #: 73  
Date: 02/01/97 Time: 13:40  
Photographer: Ashok Rupan  
Description: Facing south-west. Collecting a grab sample of the sand excavated during benching activities in the OFCA along Colfax Avenue.



Site: American Chemical Services, Inc. RD ERA

Proj #: 71670.600

Roll: 2 Photo #: 77

Date: 01-08-97 Time: 1315

Photographer: Ashok Rupani

Description: Facing south-east. Potentially damaged monitoring well MW-55 as shown in Photo #76 was temporarily secured with a 5-gallon bucket.

Site: American Chemical Services, Inc. RD ERA

Proj #: 71670.600

Roll: 2 Photo #: 78

Date: 01-08-97 Time: 1345

Photographer: Ashok Rupani

Description: Facing west. PCB-impacted soils excavated from the trench along the PGCS extraction trench alignment was stockpiled on a higher ground just west of the south end of the trench. The stockpile was eventually covered with a 1 to 2 feet thick clean sand cover.